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HEARINGS

BEFORE THE

COMMITTEE ON INTERSTATE AND FOREIGN COMMERCE

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OF THE

U.S. HOUSE OF REPRESENTATIVES

ON

H. R. 13835

RELATING TO ADULTERATED AND MISBRANDED SEED

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RELATING TO ADULTERATED AND MISBRANDED SEED.

COMMITTEE ON INTERSTATE AND FOREIGN COMMERCE,
HOUSE OF REPRESENTATIVES,
Washington, D. C., Tuesday, February 4, 1908.

The committee met at 10.30 o'clock a. m.

Present: Representatives Hepburn (chairman), Sherman, Wanger, Mann, Lovering, Stevens, Esch, Townsend, Kennedy, Hubbard, Davey, Adamson, Ryan, Richardson, Bartlett, and Russell.

Present, also, Edgar Brown, esq., in charge of seed laboratory, Bureau of Plant Industry, Department of Agriculture; A. F. Woods, esq., Assistant Chief of the Bureau of Plant Industry; F. H. Hillman, esq., assistant, seed laboratory, Bureau of Plant Industry; Prof. W. W. Tracy, sr., superintendent of testing gardens, Bureau of Plant Industry; C. J. Brand, Pathologist, Bureau of Plant Industry; R. A. Oakley, Assistant Agrostologist, Bureau of Plant Industry.

(After disposing of certain other matters the committee proceeded to the consideration of the bill (H. R. 13835) to regulate commerce in adulterated and misbranded seed and to prevent the sale or transportation thereof, and for other purposes.)

STATEMENT OF EDGAR BROWN, ESQ., IN CHARGE OF SEED LABORATORY, BUREAU OF PLANT INDUSTRY, DEPARTMENT OF AGRICULTURE.

Mr. MANN. Mr. Brown, you may give your name.

Mr. BROWN. Edgar Brown.

Mr. MANN. And what is your position?

Mr. BROWN. I am in charge of the seed laboratory of the Bureau of Plant Industry, Department of Agriculture.

Mr. MANN. We have pending before us the bill (H. R. 13835) to regulate commerce in adulterated and misbranded seed, etc. Have you given any study to the subject of the adulteration of seeds?

Mr. BROWN. Yes, sir; considerable.

Mr. MANN. Farm seeds?

Mr. BROWN. Yes.

Mr. MANN. Will you give to the committee the result of your investigations of this subject of adulteration, first of farm seeds?

Mr. BROWN. For several years we have been investigating at the Department of Agriculture this subject of the adulteration of farm seeds in connection with the paragraph in the bill making appropriations for the Department of Agriculture which specifically states that the Secretary of Agriculture is directed to obtain samples of grass and clover and forage-plant seeds in the open market and make analyses of these samples, and, when the samples are found to be adulterated or misbranded, to publish the names of the dealers who offer these samples for sale and the analyses of the samples. In

carrying on this work we have found that several different kinds of farm seeds are adulterated.

Mr. MANN. Take, for instance, red clover; I would like to follow the order in the bill.

Mr. BROWN. Red-clover is frequently adulterated with yellow-trefoil seed. Yellow-trefoil seed is the only other seed that is found usually as an adulterant of red-clover seed. This yellow-trefoil seed is imported from Germany for the specific purpose of adulterating red-clover and alfalfa seed. It is not used as a commercial seed in the United States, costs at New York about 5 cents per pound, and is used to adulterate red-clover and alfalfa seed, which are sold for from 12 to 15 cents per pound.

Mr. MANN. You say yellow-trefoil seed is not intended in any case to be planted by itself in our country?

Mr. BROWN. I suppose there may be from 200 to 500 pounds per year planted in the United States. It is not an agricultural seed in this country.

Mr. RYAN. Is it good for anything?

Mr. BROWN. It is used in Germany in very poor, sandy land as a sheep-pasture plant. It is a plant that belongs to the same family of plants as the clovers, and has the power of collecting nitrogen by the use of the bacteria in the tubercles on the roots; but it is of low growth, yields very little forage in comparison to red clover and alfalfa, and is not of any commercial importance where these better plants will grow.

Mr. RYAN. The better plants will grow in that same character of soil in this country, will they?

Mr. BROWN. We probably have not gotten our agriculture to such a state that we are cultivating the kind of soil that yellow trefoil is raised on in Germany at the present time.

Mr. MANN. As a matter of fact, it is not commercially used for planting in this country?

Mr. BROWN. Not in the United States; no.

Mr. MANN. Give us the result of your examinations which you have there as to the samples which are adulterated or not, both as to the amount of adulteration and the value.

Mr. BROWN. We have here one sample of red-clover seed adulterated with 50 per cent of yellow trefoil; and I will say that in most of the cases where we have found yellow-trefoil seed used in an adulterant of red clover it has appeared in the proportion of about 50 per cent; they have mixed it about half-and-half.

Mr. RUSSELL. Have you ever seen it grown mixed in that proportion?

Mr. BROWN. No.

Mr. RUSSELL. You do not know what the effect would be as a growing plant if that proportion of adulteration existed?

Mr. BROWN. The effect, of course, would be that you would get a light stand of red clover.

Mr. RUSSELL. Which would crowd out the other, if either would crowd the other out?

Mr. BROWN. That would probably depend upon the particular conditions of the soil and climate. This sample of red clover, that is adulterated with 50 per cent yellow trefoil, would give a profit

(the yellow trefoil being imported at \$5 per hundred) of about \$3.50 a hundred.

Mr. MANN. Give us the market value of red-clover seed, please.

Mr. BROWN. Red clover seed is worth \$14 per hundred. This sample of yellow trefoil was imported at 5 cents per pound, \$5 a hundred; and the value of the mixture—I have not the price for which the mixture was sold here, but it was something like \$12 or \$13 per hundred.

Mr. RICHARDSON. Did you find that adulteration to be general throughout the country?

Mr. BROWN. This particular adulteration is the least practiced of any of the cases of adulterants of farm seeds we have found. The adulteration of alfalfa seed, orchard grass, and Kentucky blue grass is more frequent than the adulteration of red-clover seed.

Mr. MANN. Is the yellow-trefoil seed that is used for adulteration purposes always live seed?

Mr. BROWN. Always live seed?

Mr. MANN. Yes.

Mr. BROWN. As far as my experience has gone, it has been. I think there are some cases which have been reported a good while ago where it was not.

Mr. MANN. You had a photograph here this morning; I do not remember whether it was a photograph of red clover or not. However, never mind; some one else will testify about that. Those bottles might be taken out of their cases.

Mr. ADAMSON. You do not know of any instance where that yellow refoil has been grown on poor land in this country alone?

Mr. BROWN. It is a rather common plant. It is a wayside plant. In the region surrounding Buffalo, N. Y., both in Canada and in the United States, New York, and Ohio it is frequently found in that limestone country.

Mr. ADAMSON. We know nothing about it in the southern part of the country.

Mr. BROWN. No.

Mr. MANN. It is not used in the southern part of the country for planting by itself, is it?

Mr. BROWN. It is not used in the United States at all.

Mr. MANN. Do you know the amount of yellow-trefoil seed which is imported?

Mr. BROWN. That has varied from time to time. In the present fiscal year there has been none imported. In the last fiscal year there was about 22,000 pounds imported. The year before that there was 93,196 pounds, and years before that there has been considerably more. Apparently the reduction in the importation of this seed has followed the publication of the names of the dealers who have used it as an adulterant, and the practice is not as popular as it was a few years ago.

Mr. ADAMSON. Mr. Mann, my object in asking that question was with a hope to practical benefit in the region where there is no lime, and clover and grass do not do well.

Mr. TOWNSEND. Do I understand you to say that the importation for adulteration purposes has practically ceased? Did you say that?

Mr. BROWN. During the present fiscal year there has been none imported.

Mr. TOWNSEND. Has that been due to the enforcement of the law?

Mr. BROWN. Apparently; that is, its importation has dropped off as this law has been enforced.

Mr. MANN. How about alfalfa seed?

Mr. BROWN. Alfalfa seed is adulterated with this same yellow-trefoil seed, and is also adulterated with the seed of what we call Chilean bur clover.

Mr. ADAMSON. What is the proportion of adulteration?

Mr. BROWN. It varies anywhere from 5 per cent to 40 or 50.

Mr. MANN. Give us the results of some of your analyses.

Mr. BROWN. In the sample I have before me this alfalfa was adulterated with 35 per cent of yellow trefoil; and in another case the alfalfa was adulterated with 45 per cent of Chilean bur clover. The price at which yellow trefoil was imported was \$5 per hundred, and the price of the alfalfa—there seems to be no sample of alfalfa there—was \$15 per hundred.

Mr. RICHARDSON. Did you ever notice the result of an alfalfa crop that was adulterated with 35 per cent? Did you notice the result of the crop?

Mr. BROWN. No; we have not had an opportunity.

Mr. RICHARDSON. You do not know whether it was of special benefit or special injury?

Mr. BROWN. We know this, that the man that bought seed that was 35 per cent Chilean bur clover or yellow trefoil was paying \$15 a hundred for seed that he did not want, that cost \$5 a hundred.

Mr. RICHARDSON. Exactly. The dealer was practicing false representations on him. But you would know very much better, would you not, if you had examined the result of the crop that had been planted with the adulterant in it?

Mr. BROWN. Yes.

Mr. RICHARDSON. You could tell a great deal better.

Mr. WOODS. We have a man here who can tell you about that.

Mr. MANN. Yes; I was going to say that Mr. Brand will elaborate on that.

Mr. BROWN. Another adulterant of alfalfa seed is this Chilean bur clover seed of which I spoke.

Mr. MANN. Yes.

Mr. BROWN. This Chilean bur clover seed has a rather interesting history. That, again, is imported specifically for use as an adulterant of alfalfa seed. This bur clover has burs. The seed is in burs; and these burs get in the wool of the sheep in South America. This wool is sent to Europe to be cleaned and manufactured; and the honest German combs the seed out and saves it and sends it over here to be used as an adulterant of alfalfa seed. This seed can be purchased for \$2 or \$3 per hundred in Hamburg.

Mr. MANN. That is, cleaned from the burs?

Mr. BROWN. Cleaned from the burs. That is the pure seed as it is shown here in this bottle; and it looks very much like alfalfa seed.

Mr. MANN. Will you tell us about whether the ordinary farmer or the ordinary person can by sight easily distinguish between the yellow trefoil, clover, or alfalfa and the bur clover?

Mr. BROWN. I have had some experience in this matter, in the way of showing farmers and seedmen samples of the two; and in cases where a mixture of half red-clover or alfalfa and half yellow-trefoil

seed has been used it will generally be picked out as an excellent grade of red clover or alfalfa. The color of trefoil seed is bright, and it gives the sample a nice, clean-looking appearance; and, indeed, the seeds are so close in appearance that they can only be told apart by careful examination, although they can be distinctly told when a person looks at them carefully and knows what the different forms are.

Mr. MANN. Can they be easily distinguished under the microscope?

Mr. BROWN. Oh, without any trouble at all. It is hardly necessary to use a microscope when a person's attention has been called to the peculiar differences in form and color.

There is another adulterant of alfalfa seed, I might say here, and that is yellow sweet clover. The sweet clover that you see all through the United States is very common in some parts of the West where alfalfa seed is grown; and we have found numerous cases where alfalfa seed has contained various amounts of sweet-clover seed up to 30 or 40 or 50 per cent. The sweet-clover seed may be added as an adulterant purposely or it may be harvested with the alfalfa seed. Both are quite probable, as the sweet clover is common in some alfalfa fields, especially in irrigated land bordering the irrigation ditches, and running out into the fields.

Mr. RYAN. Is sweet clover cheaper than alfalfa seed?

Mr. BROWN. Yes; sweet-clover seed in Utah sells for something like \$7 a hundred, and alfalfa seed sells for from \$12 to \$14 or \$15 a hundred.

Mr. RYAN. And there would be a profit from the combining of the two?

Mr. BROWN. A very good profit; yes.

Mr. MANN. Is sweet clover planted for farm purposes?

Mr. BROWN. It has been planted to some extent as a forage crop. Cattle do not like it very well, but if they are sufficiently hungry they will eat it. It has been used with some success as a leguminous plant for green-manuring purposes.

Mr. ADAMSON. It is a spontaneous plant, is it not?

Mr. BROWN. It is, through the northern part of the United States; yes.

Mr. DAVEY. It is regarded as a weed.

Mr. BROWN. It extends from one coast to the other.

Mr. MANN. How about the adulteration of Kentucky blue grass?

Mr. BROWN. Kentucky blue-grass seed is the one that is the most adulterated of all agricultural seeds. For the adulteration of Kentucky blue grass Canada blue-grass seed (which is very similar in appearance and can not be told from the seed of Kentucky blue grass unless examined with a lens) is imported from Canada. Practically all the seed that is raised in North America is raised in an area north and west of Buffalo, N. Y., in Ontario. There is some raised in New York and Ohio.

Mr. MANN. That is the Canadian blue grass?

Mr. BROWN. That is the Canadian blue grass. Canadian blue grass sells on the market for not over half the price of Kentucky blue grass, and of all the samples of so-called Kentucky blue-grass seed which we have collected in the United States we have found about one-third of them to be either adulterated with Canada blue-grass seed or we

have found them to be Canada blue-grass seed sold as Kentucky blue-grass seed.

Mr. TOWNSEND. Let me ask you this question: In preparing this seed somebody buys it from the farmer, and somebody, the dealer, adulterates it. Is that it?

Mr. BROWN. Yes.

Mr. TOWNSEND. Who does the adulterating? That is what we want to know. Not the farmer?

Mr. BROWN. No, no; not the farmer. It is either done by the seed jobber, the wholesaler, or in some cases it may be done by smaller dealers; but it is probably mostly done by the large dealers who are handling large quantities of it.

Mr. TOWNSEND. What proportion of the blue grass do those large dealers handle?

Mr. BROWN. Practically all of it goes through the hands of the large dealers.

Mr. RYAN. Is the practice of adulteration increasing?

Mr. BROWN. Apparently it is. The adulteration of Kentucky blue grass is not decreasing. We have here proof, on our last year's work, on the adulteration of seeds, and you will notice that this long list is a list of samples of Kentucky blue grass that have been found to be adulterated, while of all the other seeds we have only these few returns [exhibiting list to committee, proof of Circular 26, office of Secretary].

Mr. RYAN. There is as much blue grass as all the rest put together, then?

Mr. BROWN. Yes; there is more in the result of the last year's work, though last year we did not collect samples of orchard grass, and orchard grass is, next to Kentucky blue grass, the seed that is most commonly adulterated.

Mr. RYAN. You name here the firms that are found to place adulterated seed on the market?

Mr. BROWN. Yes; we name all the firms from whom we obtained samples found to be adulterated.

Mr. TOWNSEND. Is there not any penalty against doing this?

Mr. BROWN. No penalty whatever; no Federal penalty. There is a penalty in some States.

Mr. MANN. Not only is there no penalty, but every seed house has in its catalogue a provision that it makes no warranty of any kind as to the quality, character, or result of seeds.

Have you a memorandum as to the amount of Canadian bluegrass seed that is imported?

Mr. BROWN. In the fiscal year 1906 there was 762,896 pounds imported; in the fiscal year 1907, 604,411 pounds, and it does not vary very much from one fiscal year to another. Sometimes there is a million, and sometimes 600,000.

Mr. MANN. I suppose, of course, a large share of that may be used in combination for the purpose of lawn grass mixed. Is much Canadian bluegrass seed sold by itself, do you know?

Mr. BROWN. Very little; very little. The amount of Canadian bluegrass seed that is sold, and sold as Canadian bluegrass seed, is very, very small. Where Canadian bluegrass is raised in the United States, it is almost entirely a matter of its being a voluntary crop; and this occurs in that region contiguous to Lake Erie.

Mr. HUBBARD. How do the prices of those seeds compare?

Mr. BROWN. The Canadian bluegrass is never over half the price of Kentucky bluegrass, and frequently it is not half.

Mr. RICHARDSON. Have you ever made any examination at all of the history of the Johnson grass?

Mr. BROWN. No; I personally know nothing about Johnson grass.

Mr. RICHARDSON. You have read about it and heard about it?

Mr. BROWN. Yes, indeed.

Mr. WANGER. Where a seed grower is defrauded and plants adulterated seed, does he not unconsciously put the adulterated product on the market?

Mr. BROWN. We have looked into that matter pretty carefully, and we received considerable information from some of the larger seedsmen to the effect that red-clover seed from Ontario was largely mixed with the seed of yellow trefoil. In alsike-clover seed from Canada there is always present a very small amount of yellow-trefoil seed; and I personally went to Ottawa and went over the reports of the seed-testing laboratory at the department of agriculture there, and in no case did I find a sample of red-clover seed which had been examined by the Canadian department of agriculture that contained more than 5 per cent of yellow-trefoil seed, which evidently shows that the two are not harvested together to any extent. I have also gone over the orchard grass and Kentucky blue-grass-seed producing sections of the United States, and in neither case is it probable that the seed used as an adulterant would be harvested with that of orchard grass or Kentucky blue grass.

Mr. RYAN. But that it was added afterwards?

Mr. BROWN. But that it was added afterwards; yes.

Mr. MANN. Do you happen to be familiar with the Canadian law about the adulteration of farm seed?

Mr. BROWN. I have followed it pretty closely.

Mr. MANN. You know, then, that they can not sell adulterated seed there except for export?

Mr. BROWN. Except for export; yes. They can sell anything for export; and the United States buys most of that "anything" that they have left.

Mr. MANN. So that the poor seed there is sent to us?

Mr. BROWN. The United States uses the poor seed of Canada because their law specifically provides, as you say, for this export; and we also buy most of the screenings and stuff that can not be sold in Europe. The United States is the dumping ground for the poor seed of the world at the present time.

Mr. MANN. Is Kentucky blue-grass seed adulterated with anything else to any extent?

Mr. BROWN. Nothing except Canada blue grass. That is the cheapest and the most similar seed that can be used.

Mr. MANN. How about the adulteration of orchard grass?

Mr. BROWN. Orchard-grass seed is also very frequently adulterated; and there are a variety of seeds used for this purpose. They are all commercial seeds of the United States. The thing that is most frequently found in orchard grass is meadow fescue, or what is sometimes known as English blue-grass seed. These seeds are very similar in appearance; but here again there is the same difference in price—the one selling for 8 or 10 cents a pound and the other

for 4 or 5. Orchard grass is also adulterated with the seed of English rye grass, sometimes known as perennial rye grass, and the seed of Italian rye grass. The prices of the rye grasses are even lower than the prices of meadow fescue.

Mr. RYAN. Is the quality as good as that of our seed?

Mr. BROWN. The quality of what?

Mr. RYAN. Of this imported seed?

Mr. BROWN. These seeds that are used as adulterants of orchard grass are not necessarily imported, but are all of them commercial seeds in this country.

Mr. RYAN. Oh, I see.

Mr. BROWN. It is simply a matter of substituting seed of similar appearance, but cheaper in price, for the orchard-grass seed.

Mr. WANGER. What is the difference between Kentucky and Canada blue grass?

Mr. BROWN. Kentucky blue grass is the grass that has made the Kentucky blue-grass region of Kentucky famous, and is a most excellent pasture and lawn grass, having a very pronounced aftermath. If the top is cut off it has a great profusion of leaves next to the ground, which makes a good turf. The Canada blue grass is in appearance more similar to timothy; after the top is cut off there is very little leafage left, very little of anything that furnishes pasture or that makes a lawn. The stems of the Canada blue grass are also very hard, it being a solid stem, and its value as a hay is much less than that of Kentucky blue grass, although Kentucky blue grass is not one of the grasses that is cut for hay to any very great extent in this country.

Mr. WANGER. Then Canada blue grass is a very poor pasture?

Mr. BROWN. Yes, sir. Canada blue grass will, however, grow on a bare clay bank. It seems to flourish in situations where other grasses will not grow, and is of considerable use in that way. But it is not to be compared in value to Kentucky blue grass in any situation where Kentucky blue grass will flourish. We frequently see it along the slope of a railroad bank where all the top soil has been removed and nothing but the clay bank has been left.

Mr. RICHARDSON. What grass is it that your Department believes is the best for grazing purposes?

Mr. BROWN. That depends entirely on the section of the country.

Mr. RICHARDSON. What do you think about Bermuda grass?

Mr. BROWN. Bermuda is a most excellent grass for the regions where it will grow.

Mr. RICHARDSON. Is it adulterated?

Mr. BROWN. As far as I know we never have found any samples of Bermuda grass seed which were adulterated. All the seed is imported, however. There is practically none of it grown in the United States.

Mr. RICHARDSON. Practically none of the Bermuda seed is grown here?

Mr. BROWN. No.

Mr. RICHARDSON. In our section of the country, down south, where I reside, Bermuda grass is the principal grazing grass of the whole section.

Mr. HUBBARD. Is there any considerable demand for this Canadian bluegrass for use on these clay banks or otherwise?

Mr. BROWN. Very little; very little.

Mr. HUBBARD. Do people buy it for that purpose?

Mr. BROWN. There is very little of it sold in the United States as Canada blue grass. I base that statement on information from seedsmen and upon information from people in the various sections of the country where it might be used.

Mr. RICHARDSON. In the case of Bermuda grass the railroads save their embankments in our part of the country by planting Bermuda grass on the sides of them. It will preserve them and keep them from washing away, and you will get a good stand of Bermuda grass where you can not grow anything else.

Mr. BROWN. Oh, yes; that is true.

Mr. ADAMSON. All you need to plant it is a handful of roots and a razorback hog.

Mr. RICHARDSON. That is all.

Mr. MANN. How about the adulteration of meadow fescue seed? You said that was sometimes used as an adulterant.

Mr. RICHARDSON. I wanted to inquire, for local purposes and as a matter of local interest and local attention, about this Johnson grass. That is getting to be, in some States, a very dangerous grass, and in others a very beneficial one. I have known farmers to allow their plantations down in the southern portion of Alabama to grow up entirely in the Johnson grass, and they would make more money out of it than they would selling hay from any other grass, while in other sections they have said it was the destruction of the farms.

Mr. ADAMSON. Are the seeds of the Johnson grass carried in oat seed, or how are they scattered?

Mr. RICHARDSON. We do not know anything about it.

Mr. BROWN. I do not know; I am not sure. I have never seen them carried.

Mr. WOODS. I will answer the question about the Johnson grass. It is a valuable forage grass in Texas and many portions of the South, but it is a very deep-rooting grass, and it goes down sometimes 18 inches or 2 feet. When its roots once get down, it is almost impossible to get it out of the cultivated field.

Mr. RICHARDSON. It is very difficult to exterminate it?

Mr. WOODS. Yes.

Mr. RICHARDSON. And yet it is a good pasture?

Mr. WOODS. It is an excellent pasture.

Mr. ADAMSON. But we notice bunches of it about in places where we do not want it. Do you suppose it is carried in oat seed, or how?

Mr. WOODS. It might be carried in oat seed or blow there.

Mr. RUSSELL. It might be carried by the wind?

Mr. WOODS. It might be carried by the wind.

Mr. RUSSELL. You spoke of Johnson grass. I live in Texas, and our legislature has made it a violation of law for a railroad company to allow Johnson grass to grow along its right of way, because of the fact that when the seed matures the wind may blow it into the farmer's field, and it will ruin his field.

Mr. MANN. It is no violation of the law to put it in other grass seeds at present.

Mr. RICHARDSON. Yet I heard one of the most experienced farmers in my section say that he had made more money by letting Johnson

grass grow up on his plantation entirely and selling it as hay than he could make from clover or pea-vine hay, or anything of that kind.

Mr. MANN. Two years ago I asked the Agricultural Department to send some of the best grass seed they could out to my father in Florida. Among other seeds they sent him some Johnson grass, and he said he had been trying for twenty years to get rid of it.

Mr. HUBBARD. Mr. Brown, let me ask you whether the results of the tests you make as to these seeds are published otherwise than in the circulars?

Mr. BROWN. Only in these circulars.

Mr. HUBBARD. And in what way?

Mr. BROWN. I will correct that by saying that they have recently been published in the Crop Reporter as well as in these circulars.

Mr. RICHARDSON. These adulterators of seeds?

Mr. BROWN. The houses that sell adulterated seeds; yes.

Mr. HUBBARD. I presume the agricultural papers do not publish them?

Mr. BROWN. They publish little extracts, but they do not usually publish the names in full.

Mr. RYAN. If the seedsman is advertising in their publication, I do not suppose they would publish his name.

Mr. HUBBARD. Have you any suggestions as to any way in which this information could be more widely distributed than by the methods you are now using?

Mr. BROWN. As far as we know that is about as good a method as we can use.

Mr. ADAMSON. There is no copyright to prevent the county papers from reproducing it?

Mr. BROWN. None whatever; and it is distributed to the press in general.

Mr. RICHARDSON. The county papers get under the influence of these great seed dealers, and they will not publish them.

Mr. MANN. How about the adulteration of meadow fescue?

Mr. BROWN. Meadow fescue is used as an adulterant for orchard grass, and again cheat or chess is used as an adulterant of meadow fescue, cheat being a good seeder and very cheap in proportion to the price of meadow fescue.

Mr. MANN. Of what value is it as forage crop?

Mr. BROWN. Cheat has been used in some limited sections, with some success as a forage and hay crop; but its usefulness is very limited, very limited.

Mr. MANN. Is redtop adulterated?

Mr. BROWN. Redtop frequently contains a considerable amount of timothy seed. Here, again, that may of course be harvested with it; but the timothy is worth but a small part of the price per hundred pounds that redtop is worth, and when the farmer buys redtop which is 25 per cent timothy he is paying money for something he does not get.

Mr. MANN. What have you to say, Mr. Brown, as to the general question of the importation of these forage-crop seeds? Do we import large quantities of them; and if so, of what?

Mr. BROWN. We unfortunately import very large quantities of red clover and alfalfa. We do not produce in this country anywhere

nearly as much as is sown; and in importing these seeds unfortunately a very large proportion of that which we import is of low grade, because we buy the stuff that can not be sold in Canada, and we buy the stuff that can not be sold in Europe.

Mr. MANN. Does it hold true about such seeds as alsike clover, crimson clover, hairy vetch, and Bermuda grass?

Mr. BROWN. Hairy vetch and crimson clover are of uniformly good quality; but the amount of those is limited. As to alsike clover, we import a very large proportion of the alsike that we use. It practically all comes from Canada. We get a great deal of very good alsike, but we also get a great deal of very poor alsike.

Mr. MANN. The other countries have a law in reference to the adulteration of seeds, so that do you find, as a matter of practical operation, that the tendency is to ship to this country seeds of such low grade that they can not be used in Canada or European countries?

Mr. BROWN. Yes, yes; we know that to be the fact.

Mr. HUBBARD. Do all countries have these laws?

Mr. MANN. A good many of them do; not all of them.

Mr. BROWN. Here is a publication which we recently issued that gives the analysis of about a million pounds of low-grade red-clover seed that was imported during one fiscal year.

Mr. WANGER. What is the document? Suppose you identify it.

Mr. BROWN. It is Bureau of Plant Industry Bulletin 111, part 3. This million pounds of red-clover seed was imported at \$7.61 per hundred pounds. That was the average import price. The red-clover seed that would grow cost over \$20 per hundred pounds, showing that this seed was not imported for purposes of recleaning, as the seedsmen frequently claim, but was imported for the purpose of mixing with other seed to make low-grade and cheap seed.

Mr. RICHARDSON. Do you publish all this information that you have gotten in bulletins, or how?

Mr. BROWN. A good deal of it is published. Information on adulterated seeds has been published in these circulars of the office of the Secretary, and other information has been published in farmers' bulletins and bulletins of the Bureau of Plant Industry.

Mr. RICHARDSON. You say they are published in the office of the Secretary. I would like to see some of them. That is what I am after.

Mr. BROWN. I can send you a set of them.

Mr. RICHARDSON. I wish you would. Send me everything you can of that kind.

Mr. RYAN. But your investigation and publication has not reduced this practice of mixing seeds in most cases?

Mr. BROWN. Apparently it has in all cases except Kentucky blue grass. Those two, Kentucky blue grass and Canadian blue grass, are so close together that the dealers themselves can not tell them apart.

(The further hearing of this matter was thereupon adjourned until Thursday, February 6, 1908, at 10.30 o'clock a. m., and the committee adjourned until to-morrow, Wednesday, February 5, 1908, at 10.30 o'clock a. m.)

COMMITTEE ON INTERSTATE AND FOREIGN COMMERCE.

Thursday, February 6, 1908.

The committee met at 10.30 a. m. for the purpose of hearing certain gentlemen from the Department of Agriculture on the question of adulterated seeds. The following named gentlemen appeared: A. F. Woods, Edgar Brown, W. W. Tracy, sr., R. A. Oakley, F. H. Hillman, Charles J. Brand.

STATEMENT OF MR. EDGAR BROWN—Continued.

MR. MANN. You have a list of some seed adulterations that you have discovered?

MR. BROWN. Yes, sir. This was furnished as an exhibit presented at Tuesday's hearing [proof for Circular 26, Office of Secretary].

MR. MANN. Please furnish that to the stenographer. Can you also make and furnish to the stenographer the list of the various adulterated seed, together with their market value?

MR. BROWN. I will do that. I have here some photographs showing the similar appearance of seeds commonly adulterated and the seeds which are used as adulterants.

	Market price.
Red clover-----per 100 pounds--	\$17. 00
Yellow trefoil, used as an adulterant of red-clover and alfalfa seed-----per 100 pounds--	5. 00
Alfalfa -----do----	15. 00
Bur clover, used as an adulterant of alfalfa-----do----	2. 50
Sweet clover, used as an adulterant of alfalfa-----do----	7. 00
Orchard grass-----do----	15. 00
Meadow grass, used as an adulterant of orchard grass-----do----	10. 50
Rye grass, used as an adulterant of orchard grass-----do----	5. 25
Kentucky bluegrass-----do----	17. 00
Canada bluegrass, used as an adulterant of Kentucky bluegrass. do----	8. 00

Some of the seeds that are imported are not quoted in the United States, and I will give the imported price. The prices in the United States based on the foreign price?

MR. MANN. The market price quoted is usually the wholesale market price.

MR. BROWN. It is.

MR. WANGER. In this country or abroad?

MR. BROWN. In this country.

MR. MANN. Have you any information as to the prices of Dickinson, Vaughn, and others? I suppose the price of these other concerns is ordinarily higher than the prices of Dickinson and others.

MR. BROWN. Yes, sir; those houses usually quote two prices, the wholesale price and the price to the retailer.

MR. MANN. Are you familiar with the prices of those houses?

MR. BROWN. Yes, sir. Dickinson does a large wholesale business and the others do a retail business.

MR. MANN. Dickinson buys most of the forage crop seeds that come to Chicago.

MR. BROWN. He handles more timothy and clover seed than any other one house in the United States.

MR. MANN. Does he sell seed to Vaughn, Barnard, or Leonard?

MR. BROWN. He sells more to the country dealers.

MR. MANN. The figures, then, that you would give would be the figures of these wholesale houses?

Mr. BROWN. Yes, sir.

Mr. MANN. Do you think it would be fair to compare the import price with the price of these other seeds?

Mr. BROWN. I think so, because the men who do this mixing buy at import prices.

Mr. MANN. The prices that you give would be based on the wholesale or the selling price and not on the buying price?

Mr. BROWN. Yes, sir. There might be a slight discrepancy. There might be a discrepancy of 10 or 15 per cent between the import and the selling price. That would be a matter of small amount in the case of a seed that sells for \$5 per hundred pounds.

Mr. MANN. Are you familiar with houses like Dickinson, as to the way in which they handle seed?

Mr. BROWN. No, sir. I have been through the plants of other large seed dealers in many cities.

Mr. MANN. You know how they buy and clean seed?

Mr. BROWN. They do an enormous lot of that. They have a large plant of the best cleaning machinery for cleaning large quantities, and they are all the time improving and changing the grade.

Mr. MANN. Is there anything else to which you wish to call attention?

Mr. BROWN. I want to call attention to a sample of imported red clover, which was an importation of about 5,000 pounds. It looks good, but it germinates only 17½ per cent.

Mr. ESCH. What is the matter with it?

Mr. BROWN. It is dead.

Mr. MANN. What is the germination of the other sample?

Mr. BROWN. I have not that here. It would probably germinate 95 per cent or more.

Mr. MANN. Are you familiar with the germination of these seeds?

Mr. BROWN. Yes, sir.

Mr. MANN. How does it usually run?

Mr. BROWN. A good sample of clover seed would germinate 95 to 98 per cent.

Mr. MANN. It is possible for it to do that?

Mr. BROWN. Yes, sir.

Mr. ESCH. What effect has age upon germination?

Mr. BROWN. It reduces the vitality of the seed. It depends altogether on the condition in which it is kept.

Mr. ESCH. Starting with a good quality of seed, with a germination of 95 per cent, say clover seed, what deterioration would there be in a year's time?

Mr. BROWN. It depends on the condition in which it is kept. If it is kept in a cool, dry climate, as in the northern part of the United States, a year will make very little change. If it is kept in the East, in the South, or in the Gulf or South Atlantic States, where both the temperature and humidity is high, the germination might deteriorate 20 to 30 per cent.

Mr. MANN. Is there anything in the physical condition of seed that would enable you to know its age?

Mr. BROWN. No, sir.

Mr. MANN. You can only tell by experiments in germination.

Mr. BROWN. We can not tell how good a sample it is. We can not tell how old it is, but the vitality is affected by conditions of storage more than by age.

Mr. MANN. Is that true of other seed in this bill?

Mr. BROWN. It is true of seed in general.

Mr. WANGER. Has your bureau published any literature on the subject?

Mr. BROWN. We have some good data on that subject, as Bureau of Plant Industry Bulletin 58.

Mr. MANN. Is there anything else on which you wish to speak?

Mr. BROWN. No; unless it is in connection with vegetable seed. We have made examinations this year with reference to germination of about 2,800 packets of vegetable seed put up in small packets, which are usually found and sold in grocery stores. At the end of a year the amount which is not sold is brought back, and the next year they usually put that into new packets. The average germination of something like 2,800 samples was 62.2 per cent. They were from 27 different houses and were composed of about as many different kinds of vegetable seed. The average germination of seed from one firm was only 37.3 per cent. The average germination of seed from another firm was 43.3 per cent.

Mr. MANN. Is there any objection to giving the names of these firms?

Mr. BROWN. The Secretary of Agriculture decided that he would not divulge the names of those firms.

Mr. HUBBARD. What is the highest percentage?

Mr. BROWN. It is 100 per cent for some packets. The highest average for any one firm was 81.7 per cent. A good many firms put a private mark on these packets, and we went to the trouble of picking out a lot of them which had a square mark on them and others which had a circle mark, and we found a difference of 18 or 20 per cent in those packages having the square marked on them as compared with the ones having the circle marked on them. The germination of the different packets of seed of the same kind from one firm in several cases varied as much as 90 per cent between the best and worst samples.

Mr. MANN. They are sold at the same price?

Mr. BROWN. Yes, sir. Two hundred of these packets germinated less than 10 per cent. They came from 21 different firms. The seeds in 62 of these packets were absolutely dead. They came from 13 different firms.

Mr. MANN. Have you any of the envelopes of those packets?

Mr. BROWN. I have none here.

Mr. MANN. Do these packages bear what is known as the "non-warranty" clause?

Mr. BROWN. I am not sure whether there is any on this small packet or not.

STATEMENT OF MR. F. H. HILLMAN.

Mr. MANN. What is your position in the Agricultural Department?

Mr. HILLMAN. I am assistant botanist in the seed laboratory of the Department of Agriculture.

Mr. MANN. Will you state to the committee the ordinary methods and practices followed in the laboratory of the Department and elsewhere in reference to the determination of adulteration of seed?

Mr. HILLMAN. A seed test involves two classes of examination, for purity and germination. A sample as it comes in is passed through

a mixing machine. It is mixed as well as possible and finally is subdivided until reduced to a small sample representing in clover or alfalfa seed—for instance, about 5 grams, or about a tablespoonful. It is then removed from the mixing machine and separated into three parts, (1) pure clover seed, (2) foreign seed, and (3) inert matter, as dirt, stems, broken seeds, etc. The percentage of these different ingredients is determined, showing the percentage of the purity of the sample.

The germination test is made by taking seed from the pure seed of the sample. It is indiscriminately picked out, counting out 200 seeds in duplicate.

In the matter of adulterants, take, for instance, Kentucky blue-grass seed adulterated with Canada blue-grass seed, which we were discussing the other day. In a test involving two such similar kinds of grasses, the two kinds are not at first separated or determined for the reason that the work would be unduly prolonged to separate the whole into Kentucky and Canadian blue-grass seed, but from the mixed blue-grass seed a thousand seeds are counted indiscriminately. The two kinds are then separated, after which the percentage of each is determined by count. The same course is followed with red-clover seed and alfalfa seed.

Mr. MANN. Of course you sometimes review your work by drawing another sample?

Mr. HILLMAN. That is sometimes done.

Mr. MANN. Do you find from that second test results corresponding as to the efficacy of the correctness of the plan?

Mr. HILLMAN. Duplicate tests usually show slight variations. I do not think that in the case of a seed test it is a greater variation than in the case of a chemical test. It is true that only a small sample can be tested. With a large sample the amount of labor would be great, and consequently the selection of the test sample is important.

Mr. MANN. State what is the result of your investigation in the matter of the test of imported seed.

Mr. HILLMAN. Our investigations have related largely to the examination of seeds that have come in from foreign countries. The Department receives small samples representing a few ounces of clover seed or of grass seed which has been imported into the country. Each importation is represented by a small sample sent from the custom-house. We have examined many of these samples, especially with respect to the matter of purity. In the case of samples of red-clover seed and alfalfa, especially, they have often been found to consist largely of foreign seeds of various kinds and of small clover seed. The red-clover seed produced in different regions differs in size, and its value in crop production differs accordingly. The examination of the red-clover seed, for instance, has shown that oftentimes the number of foreign plants represented will reach as high as 90 kinds of foreign seed, which is about the amount represented in this bottle, containing about half a pint. We never know from what part of an invoice a sample is taken. There is a difference in the seed taken from the top and that from the bottom of a sack, as to the degree of mixture.

I have here a sample of clover seed which was imported from Germany. The total number of foreign seed in a small lot of this seed was found to be 144,550, or nearly 145,000 foreign seeds per pound.

Mr. MANN. How many seeds are there in a pound?

Mr. HILLMAN. Clover seeds will run somewhere between 250,000 and 500,000 seeds per pound. Probably half or more of the seeds in this sample are foreign seeds. There is in the neighborhood of 60 different kinds of foreign plants represented in this sample of seed. One kind is present in great abundance.

Mr. ESCH. Are there any seeds of noxious weeds in these samples?

Mr. HILLMAN. There always is. In this way it is probable that many of our farms have become well stocked with these noxious plants, especially those of dodder.

Mr. MANN. Have you found that there has been imported large amounts of seeds of low quality?

Mr. HILLMAN. Yes; very large amounts, especially in the case of red-clover seed. In a few cases the same is true of alfalfa.

Mr. MANN. Have you a number of other cases?

Mr. HILLMAN. I have here cards representing other cases. These show the seeds, and if you will take the accompanying magnifying glass and get a close view of them, you can compare them.

Mr. MANN. Suppose you give to the committee the result of those investigations and duplicates of the others and hand them to the stenographer or put them in the notes.

Mr. HILLMAN. I have two cases represented here in which one imported sample from Germany contained nearly 145,000 foreign seeds, and another contained a little over 90,000 seeds per pound.

Mr. MANN. What can you say about the quantity of weed seed that is in the imported seed? Are they mostly found in the foreign crop of seed?

Mr. HILLMAN. Yes, sir. Most of the seed containing weed seed comes from Europe. In the clover seed produced in Russia these impurities are not so abundant. They do not occur in our American seed to the extent that they do in the foreign seed. Most of these poor grades are shipped out of Europe.

Mr. MANN. What is your observation as to the quantity of weed seed in American-grown seed?

Mr. HILLMAN. It is very much less.

Mr. MANN. Can you give us any idea of the amount?

Mr. HILLMAN. In terms or percentage?

Mr. MANN. As to the number of cases. Is it common or uncommon?

Mr. HILLMAN. It is comparatively uncommon for seed of the first quality, clover seed or alfalfa seed, to carry a large percentage of weed seed. It is not more than 5 per cent. It is common for the foreign seed to carry from 20 to 50 per cent.

Mr. BARTLETT. Is there any way by which they can prevent the noxious weed seeds getting into forage seeds?

Mr. HILLMAN. It is carried from farm to farm in different ways, sometimes by irrigation.

Mr. BARTLETT. They have introduced in my section what is called the Johnson weed, introduced by hay from Pennsylvania.

Mr. HILLMAN. That is a very common method of introduction.

Mr. MANN. Probably the most common way of introducing this noxious weed is through cars that carry cattle from one place to another. What is dodder?

Mr. HILLMAN. It is a parasitic flowering plant which produces seed. The group of dodders represents a long list of kinds, of which ten or a dozen are considered economic, for the reason that clover crops are infested by these plants, and, since they produce seed, they become scattered throughout the country where clover seed is used.

Mr. MANN. Have you had any experience that would enable you to show what the effect of dodder is in a clover field.

Mr. HILLMAN. I have seen severe instances of its destructiveness. Dodder has been introduced from Chile and is ruining the clover industry in various parts of the Eastern States where the plant has been introduced. Last year I saw two large fields in Maryland and one field in Pennsylvania in which from 20 to 25 acres were ruined by this plant. The crop was overrun and in some places it was torn down by the weight of the dodder, and the sap of the clover was being taken. The suckers from the dodder kill the clover by withdrawing its sap.

Mr. MANN. Is the dodder usually yellow?

Mr. HILLMAN. Yes, sir. One kind has a reddish tinge.

Mr. MANN. If you see a field of clover that has yellow spots in it, is it an indication that the field has been taken possession of by dodder?

Mr. HILLMAN. That is a good indication.

Mr. MANN. I suppose that it has absolutely no value for any purpose?

Mr. HILLMAN. Absolutely none. The only instance in which I have heard of it being used was in the case of a Mormon farmer who cleaned 60 bushels of the seed of the dodder from his alfalfa seed crop, and rather than throw it away he fed it to hogs. He said they did not die. As a rule dodder on hay is cast aside and not eaten by stock.

Mr. MANN. Can you say what proportion of the clover or alfalfa seed of the United States is adulterated with the dodder seed?

Mr. HILLMAN. Of the imported seed of a certain class, probably half or a greater part contains dodder. I refer to the smaller seeded or lighter grades of red clover handled in this country. The seed can not be completely cleaned of the dodder, and if it were cleaned to a point that would make a fairly good crop, there would still be too many other weeds contained in it.

In the western country where alfalfa seed is produced there are three kinds of dodder whose seeds are almost invariably found in the western alfalfa seed crop.

Mr. MANN. Could anyone be deceived in a field of clover in which he expects to obtain seed in reference to the presence of dodder?

Mr. HILLMAN. He should not be deceived.

Mr. MANN. It can easily be seen by the eye.

Mr. HILLMAN. It is usually conspicuous. One kind is very inconspicuous. It could be noted, however, on a little close investigation among the clover plants. The growth is easily distinguishable.

Mr. MANN. Is dodder seed imported by itself?

Mr. HILLMAN. It is not.

Mr. MANN. Are you able to say whether the dodder seed found in the clover and alfalfa seed is put there or is there by accident?

Mr. HILLMAN. I am very certain it is accidental. It is in the seed when bought up. In this it differs from trefoil, which is a common adulterant.

Mr. MANN. That is imported by itself?

Mr. HILLMAN. Yes, sir.

Mr. MANN. Does the dodder seed resemble the seed of clover?

Mr. HILLMAN. Not closely. I have here a farmer's bulletin in which these different varieties of dodder seed are shown in connection with the seeds of clover and alfalfa. This is Farmers' Bulletin 306.

Mr. MANN. Do you think the average person could be able to tell dodder?

Mr. HILLMAN. The average person should be able to distinguish it. It is a question of the reading of the description of the seed as compared to alfalfa and clover seed. By using the lens it can be detected.

Mr. MANN. It is simply a question of making an inspection?

Mr. HILLMAN. You can hardly fail when you inspect it. We have described dodder seed in this bulletin in such a manner that anyone should be able to tell it by the use of the lens. I have here some cards in which dodder seed are shown. Two or three kinds of dodder seed are shown alongside of clover seed, so that one can compare their relation in appearance.

Mr. MANN. Have you anything to say to us in addition to what Mr. Brown has already said about foreign crop seed?

Mr. HILLMAN. No, sir; I think Mr. Brown covered that pretty well.

Mr. BARTLETT. I see that another way to detect it is by using the sieve.

Mr. HILLMAN. There are two kinds that can be detected by the use of the sieve, separating it from alfalfa or red clover, if the red clover is of proper size—that is, not too small.

Mr. HUBBARD. From what foreign country are seeds imported in any considerable quantities?

Mr. HILLMAN. Mostly from Germany. Some alfalfa comes from France. Russia sends some red clover, but it comes mostly from Germany.

Mr. HUBBARD. As to purity is there a marked difference in importations?

Mr. HILLMAN. I think we get most of our impure seed from Hamburg.

Mr. MANN. Does that mean it is German-grown seed?

Mr. HILLMAN. To a very large extent.

Mr. MANN. Is not Hamburg the largest seed market in the world?

Mr. HILLMAN. I think so.

Mr. HUBBARD. From what part of Russia does the Russian seed come?

Mr. HILLMAN. From central Russia.

Mr. TOWNSEND. What is this seed represented to be?

Mr. HILLMAN. Importers often fail to state the particular kind of clover seed. They name it "clover seed" to make it pass, but the name does not always fit it very well.

Mr. WANGER. Some farmers are changing somewhat their method of growing red clover, and it is not nearly so profitable as it formerly was.

Mr. HILLMAN. That is true. It has to do with the character of the soil. Again, seed grown under certain climatic conditions is not adapted to produce good crops under more rigorous conditions. We do not look for the best crops of red clover from seed grown in the warmer climates, even if superior in purity. Experiments on clover production have been made in Wisconsin and Michigan and also at the Department of Agriculture, and in every instance clover seed produced in the more temperate parts of the world has been found not adapted to the more rigorous climate of the northern United States.

Mr. BARTLETT. In my section there is a clover which springs up which is called "white clover."

Mr. HILLMAN. That has long been known. It is probably native.

Mr. RICHARDSON. What have you to say as to the life of clover?

Mr. HILLMAN. It is not safe to depend on red clover for more than two years. White clover is perennial. Two years is as long as red clover should be depended upon to continue productive. Straggling plants will live from three to five years, and possibly more. The longer retained stand of red clover is due to reseeding as a rule.

Mr. ESCH. On one page of the bill it says, speaking of seed as to weight or measure, that if it is not correctly stated it must be misbranded. Is the value of the seed lessened or increased under atmospheric conditions?

Mr. HILLMAN. Vitality is materially influenced by atmospheric conditions.

Mr. ESCH. That seed is only put in 50-pound or 20-pound sacks.

Mr. HILLMAN. Yes; that is done in trade.

Mr. ESCH. In labeling is not it often found that there is such fluctuation as would make a case of misbranding?

Mr. HILLMAN. No; because that fluctuation is due to moisture. It usually does not interfere with the physical quality of the seed. If it were carried to an extreme it would interfere. The vitality of the seed is due more to the condition of storage than age, within a limited time.

Mr. ESCH. If there was a fluctuation of two or three points would it be a violation of law?

Mr. HILLMAN. I should not think so.

Mr. MANN. Is there much fluctuation in the weight of seed?

Mr. HILLMAN. Yes; due to humidity. Alfalfa produced in the West will increase in weight when brought to the East.

Mr. MANN. Mr. Hillman, will you please furnish to the committee a list of the importation of these adulterated seeds for the last fiscal year?

Mr. HILLMAN. Yes. We have lists that show the amount of adulterated seed. Seed imported for use in adulteration consists (1) of yellow trefoil used in adulterating clover and alfalfa seed; (2) Canada blue grass for adulterating Kentucky blue grass, and (3) low-grade clover and alfalfa screenings. Imported trefoil amounted to 93,196 pounds in the fiscal year 1906, and 22,000 in 1907. Imported Canada blue grass amounted to 762,896 pounds in 1906, and 604,411 pounds in 1907. Imported screenings in 1906 were: Red clover, 990,809 pounds; alfalfa, 275,572 pounds.

Mr. MANN. Give us the adulterated seed and the adulterant of seed.

Mr. HILLMAN. This imported seed does not all represent adulterated. It may be adulterated after it gets here.

Mr. TOWNSEND. You should state also the amount imported.

Mr. MANN. Give the good and the bad seed.

Mr. HILLMAN. The following tables show in detail the character of the imported low-grade red clover and alfalfa screenings. Column 2 shows the amounts of foreign seeds including all weed seeds; column 3 shows the amount of all inert foreign matter; column 4 shows that 75 per cent of the samples contained dodder; column 5 shows the number of kinds of weed seeds. These numbers are often doubled by the examination of larger samples. Low germination of much of the seed is shown in column 7; the import price and the actual cost of good seed per hundredweight are shown in columns 9 and 11.

ANALYSES OF IMPORTED LOW-GRADE SEEDS.

RED CLOVER.

Table I give the analyses of 61 lots of low-grade red-clover seed imported during the fiscal year ended June 30, 1906, amounting to 990,809 pounds. The total importations of red-clover seed for the same period amounted to 7,498,287 pounds, so that the low-grade seed furnished about one-eighth of the total. These low-grade importations contained seed enough to sow approximately 125,000 acres at an average rate of seeding. This seed is for the most part small-sized, light-weight screenings. A practical failure must be expected whenever seed of this quality is used, either from not securing a stand on account of poor germination or from smothering with introduced weeds.

TABLE I.—Analyses of 61 samples of low-grade red-clover seed imported during the year ended June 30, 1906.

	1	2	3	4	5	6	7	8	9	10	11
Number of seed sample.	Red-clover seed.	Other seeds.	Dirt and broken seed.	Dodder present. ^a	Kinds of weed seeds.	Weight of 1,000 red-clover seeds.	Germination of red-clover seed.	Quantity of red-clover seed imported. ^b	Price per 100 pounds at which seed was imported.	Live red-clover seed (seed that germinated) in sample.	Actual cost of 100 pounds of red-clover seed that germinated.
	Per cent.	Per cent.	Per cent.		Number.	Milligrams.	Per cent.	Pounds		Per cent.	
2945	48.06	25.78	26.16	No....	39	882	38	6,740	\$5.20	18.26	\$28.48
2946	66.1	13.16	20.74	Yes....	27	900	91	5,027	7.60	60.15	12.63
2947	77.43	9.44	13.13	Yes....	32	1,135	83	6,876	9.10	64.27	14.16
3101	72.5	25.73	1.77	No....	10	1,594	96.5	3,750	11.00	69.96	15.72
3159	73.14	10.38	16.48	Yes....	25	893	88.5	16,535	8.00	64.73	12.36
3222	73.8	7.88	18.32	Yes....	24	810	89	13,380	7.20	65.68	10.96
3395	70.41	10.90	18.69	Yes....	20	779	76.5	30,857	7.00	53.86	12.99
3400	75.78	9.35	14.87	Yes....	28	895	80	32,706	7.75	60.62	12.78
3425	70.65	21.89	8.06	No....	33	1,377	77.5	32,630	8.00	54.29	14.73
3432	74.39	15.02	10.59	Yes....	50	951	75.5	22,000	8.00	56.16	14.24
3456	43.03	19.31	37.66	Yes....	39	855	28.5	25,503	2.80	12.26	22.84
3457	46.24	19.09	34.67	Yes....	32	818	27.5	35,347	6.10	12.72	47.95
3488	63.51	23.22	13.47	No....	29	913	68	35,350	5.80	43.05	13.47
3566	69.81	12.25	17.94	Yes....	23	847	72	32,893	7.50	50.26	14.92
3571	67.89	16.67	15.41	No....	29	995	66.5	29,490	9.20	45.15	20.37
3587	67.55	13.50	18.95	Yes....	45	898	60.5	7,015	7.10	40.87	17.37
3588	76.74	14.53	8.73	Yes....	39	952	63.5	12,498	7.60	48.73	15.59
3591	70.6	12.59	16.81	Yes....	30	839	21.5	13,119	3.50	15.18	16.27
3598	74.73	12.68	12.59	Yes....	40	1,102	75.5	33,069	8.25	56.42	14.62
3647	64.84	11.69	23.47	Yes....	32	885	68	32,562	7.70	44.09	17.46
3696	64.09	13.79	22.12	Yes....	36	840	62.5	44,029	11.50	40.05	28.71
3721	72.55	20.67	6.78	No....	19	1,143	75.5	32,523	7.60	54.77	13.88
3755	65.65	18.48	15.87	No....	33	885	52.5	6,550	5.50	34.47	15.96
3810	65.52	19.23	15.25	Yes....	23	977	48.5	15,588	6.40	31.78	20.14

^a 75.41 per cent of samples contained dodder.

^b Total quantity of low-grade red-clover seed imported, 990,809 pounds.

TABLE I.—*Analyses of 61 samples of low-grade red-clover seed imported during the year ended June 30, 1906—Continued.*

	1	2	3	4	5	6	7	8	9	10	11
Number of seed sample.	Red clover seed.	Other seeds.	Dirt and broken seed.	Dodder present.	Kinds of weed seeds.	Weight of 1,000 red-clover seeds.	Germination of red-clover seed.	Quantity imported.	Price per 100 pounds at which seed was imported.	Live red clover seed (seed that germinated) in sample.	Actual cost of 100 pounds of red-clover seed that germinated.
	Per cent.	Per cent.	Per cent.		Number.	Milligrams.	Per cent.	Pounds		Per cent.	
3811	57.3	22.81	19.89	Yes	45	1,021	42	15,506	\$5.60	24.06	\$23.27
3816	64.58	10.27	25.15	Yes	31	886	60.5	32,116	7.62	39.07	19.58
3834	77.45	7.70	14.85	Yes	28	1,087	66	33,159	9.60	51.12	18.70
3906	61.34	15.51	23.15	Yes	45	846	53	32,468	7.50	32.51	23.07
3945	67.04	17.10	15.86	Yes	36	891	67	12,474	8.50	44.91	18.93
3946	83.54	6.60	9.86	Yes	21	995	74	30,427	11.20	61.82	18.12
3959	94.04	.95	5.01	Yes	12	1,357	44.5	1,576	9.50	41.85	22.70
3960	94.15	1.77	4.08	Yes	19	1,552	69	11,288	9.90	64.96	15.24
3962	97.15	.66	2.19	Yes	11	1,538	31	12,000	8.60	33.03	26.04
3963	96.07	1.66	2.27	Yes	14	1,585	70	6,393	8.00	67.25	11.90
3964	96.32	1.93	1.75	Yes	11	1,603	72	5,952	9.10	69.35	13.12
3965	93.54	.27	6.19	Yes	9	1,422	15	2,425	4.50	14.03	32.07
3967	95.04	1.20	3.76	Yes	17	1,404	48	7,937	7.60	45.62	16.66
3994	47.49	32.08	20.43	Yes	41	909	17.5	10,995	4.70	8.31	56.56
3990	88.07	10.32	6.61	No.	17	1,252	72.5	750	12.00	60.22	19.93
4009	83.87	8.02	8.31	Yes	42	1,370	46.5	11,130	8.20	38.9	21.08
4010	64.04	17.07	18.89	Yes	41	835	26	15,024	5.80	16.65	34.83
4026	68.59	17.78	13.63	Yes	20	870	86.5	1,000	14.20	59.33	23.93
4029	94.23	2.59	3.18	No.	11	1,582	65.5	10,318	8.80	61.72	14.25
4031	95.41	1.76	2.83	Yes	11	1,495	54.5	2,500	8.98	51.99	17.27
4032	93.82	3.91	2.27	No.	14	1,732	43.5	6,303	6.80	40.81	16.65
4035	95.52	2.16	2.32	Yes	19	1,555	27.5	3,382	7.86	26.27	29.69
4038	95.63	1.12	3.25	Yes	17	1,397	53.5	2,372	7.70	51.16	15.05
4044	67.80	14.91	17.29	Yes	43	963	31.5	32,074	7.00	21.36	32.77
4051	98.29	.41	1.3	No.	5	1,597	59.5	2,551	6.90	58.48	11.79
4053	93.55	.17	6.28	Yes	8	1,434	8	1,102	4.50	7.48	60.16
4067	78.61	8.82	12.57	No.	15	1,164	50	453	4.00	39.30	10.18
4084	61.09	16.93	21.98	No.	19	1,236	75.5	33,866	10.10	46.12	21.90
4097	64.77	16.41	18.82	Yes	50	951	46	10,787	7.00	29.79	23.50
4118	74.04	15.18	10.78	Yes	35	1,010	60.5	2,963	7.50	44.79	16.74
4163	76.62	12.36	11.02	No.	26	1,165	75.5	30,000	8.10	57.84	14.00
4165	54.44	24.57	20.99	No.	37	868	38	18,200	6.00	20.68	29.01
4179	61.56	15.58	22.86	Yes	45	926	55.5	22,046	6.12	34.16	17.93
4180	61.04	12.58	26.38	Yes	27	926	75.5	4,851	7.70	46.08	16.71
4181	58.02	17.13	24.85	Yes	46	933	54	22,046	6.12	31.34	19.54
4183	77.65	8.15	14.20	Yes	38	980	87.5	7,363	9.75	67.94	14.35
4225	72.79	16.88	10.33	Yes	43	1,010	29	6,178	6.00	21.11	28.42
Average.	74.06	12.17	13.83	.....	29.7	1,105.5	58.03	.....	7.61	43.16	20.39

In more than one-half of the 61 samples of which an analysis is given the weight of 1,000 seeds is less than a gram, while 1,000 good plump seeds weigh $1\frac{1}{2}$ grams or more. These lots contain an average of only 43.1 per cent of live red-clover seed and much of the seed that will germinate is worthless for seeding purposes, as it is of small size, immature, and of low vigor.

It is often claimed that seed of this kind is imported to be recleaned before it is put on the market. This, however, can not be the case, as in the importations referred to the average cost of the red-clover seed that will grow is \$20.39 per hundred pounds on the basis of the average import price of \$7.61 per hundred pounds. At the time this seed was imported five lots of high-grade seed were offered for sale to the Department of Agriculture at an average price of \$15.05 per hundred pounds, the average cost of the red-clover seed that germinated being \$15.59 per hundred pounds. In other words, 100 pounds of seed that would grow of the best quality cost \$15.59, while 100 pounds that would grow of the poorest quality was imported at a cost of \$20.39.

This low-grade seed always carries a large number of weed seeds, 50 kinds being found in each of two lots. Of that from Germany all but five lots contained dodder seed.

In sowing seed of the average quality shown in Table I at the rate of 8 pounds to the acre there would be about nine weed seeds sown per square foot, including three dodder seeds to every 2 square feet.

ALFALFA.

Table III gives the analyses of 16 selected low-grade samples of imported alfalfa seed, representing cargoes amounting to 275,572 pounds. Since the total importations of alfalfa seed during the same period were 5,688,689 pounds, the low-grade seed furnished about one-twentieth of the total. The quality of this low-grade seed is similar to that of the red-clover seed shown in Table I. The germination is low and the seed in many samples is small or shriveled. All but two of these lots contain dodder, and all contained on an average more than 15 kinds of weed seeds.

TABLE III.—Analyses of sixteen samples of low-grade alfalfa seed imported during the fiscal year ended June 30, 1906.

No. of seed sample.	1	2	3	4	5	6	7	8	9	10	11
	Alfalfa seed.	Other seeds.	Dirt and broken seed.	Dodder present. ^a	Kinds of weed seeds.	Weight of 1,000 of alfalfa seeds.	Germination of alfalfa seed.	Quantity of seed imported. ^b	Price per 100 pounds at which seed was imported.	Live alfalfa seed (seed that germinated) in sample.	Actual cost of 100 pounds of alfalfa seed that germinated.
	Per cent.	Per cent.	Per cent.		Number.	Milligrams.	Per cent.	Pounds.		Per cent.	
2929	84.56	3.52	11.92	Yes	18	1,704	79.5	10,208	\$9.50	67.22	\$14.13
2941	96.18	1.28	2.54	No	1	2,166	46	12,106	8.10	44.24	18.30
2942	88.58	1.98	9.44	Yes	14	1,890	53	7,797	7.90	46.95	16.83
2996	89.42	3.68	6.9	No	10	1,787	56.5	16,475	9.25	50.52	18.31
3002	88.06	3.24	8.7	No	12	1,806	52.5	32,439	9.40	46.23	20.33
3003	87.8	3.54	8.66	No	12	1,748	45	15,923	9.90	39.5	25.06
3047	90.46	3.97	5.57	Yes	14	1,757	58	16,610	10.25	52.47	19.53
3068	94.38	2.59	3.03	Yes	9	1,834	50	14,475	8.50	47.19	18.01
3082	91.01	4.33	4.66	Yes	15	1,622	63.5	16,632	10.25	57.79	17.73
3158	90.8	4.68	4.52	Yes	18	1,328	9	33,275	2.00	8.17	22.22
3393	94.63	1.77	3.6	Yes	17	1,753	73.5	16,500	10.13	69.55	14.56
3751	87.4	2.1	10.5	Yes	20	1,529	8	33,022	2.63	6.99	37.55
4132	82.02	6.18	11.8	Yes	23	1,032	77	5,610	7.50	63.15	11.87
4135	72.54	14.13	13.33	Yes	22	1,065	50	11,396	6.00	36.27	16.54
4232	63.85	16.79	19.36	Yes	26	1,037	58.5	3,844	5.00	37.35	13.39
4207	81.31	4.38	14.31	Yes	21	1,164	43.5	29,261	5.70	35.37	16.12
Average.	86.44	4.89	8.68	.....	15.75	1,580	51.47	.....	7.63	44.31	18.73

^a 75 per cent of the samples contained dodder.

^b Total quantity of low-grade alfalfa seed imported, 275,572 pounds.

STATEMENT OF PROF. W. W. TRACY, SR.

Mr. MANN. What is your position?

Mr. TRACY. I am superintendent of the test gardens of the Agricultural Department.

Mr. MANN. You have especially to do with vegetable seed?

Mr. TRACY. Yes; that is practically all of my work.

Mr. MANN. Will you give to the committee your information in relation to the adulteration of vegetable seed and also state as to the vitality of the vegetable seed as you gather it from certain sources, as come within your experience? Give us your information on that subject.

Mr. TRACY. The seed adulteration is largely carried on by the seedsmen. I do not think the seed is very largely adulterated purposely, but rather through carelessness on the part of those engaged in the raising and handling of seed.

Mr. MANN. As I understand, you have handled large quantities and a great many samples of these seeds?

Mr. TRACY. Yes; I have handled a great many.

Mr. MANN. What do you find in reference to the vitality of seed?

Mr. TRACY. The seed, as sent out by seedmen, either through commission or otherwise, is frequently of very low vitality, because of a shortage in the current year's crop, in which case the seed is supplanted by last year's seed so as to make up the required amount, but is found often to be of low vitality. This reduction in the forage crop is not largely done. The adulteration of seed, as has been reported in regard to the forage crop, is not large.

Mr. MANN. With other vegetable seed?

Mr. TRACY. With other vegetable seed.

Mr. MANN. Is it not a common thing to adulterate vegetable seed by putting in other seed of a somewhat lower vitality?

Mr. TRACY. That is frequently done. They adulterate a lot by putting in some of a lower vitality.

Mr. MANN. And sometimes they put in dead seed?

Mr. TRACY. In some cases, yes.

Mr. MANN. Do you find that there is any variation in the variety of seeds as to names. Are they true to name?

Mr. TRACY. They are not always true to name. Often there is a wide difference in the cost of growing seed of different varieties, and a more easily grown seed is supposed to be harder to produce.

Mr. MANN. Is there any way to tell that by the examination of the seed?

Mr. TRACY. Not generally. There are instances in which it can be done.

Mr. MANN. It is an easy matter to impose upon the purchaser, who is unable to distinguish the variety of the seed itself, and he can only ascertain it by planting it.

Mr. TRACY. It is easy to deceive them in that way. I have a couple of samples to illustrate that. Here are two samples of peas. I took these two samples because they were easy. These two samples of peas are not easy to tell apart and yet one grows 6 inches and the other grows 4 feet high. One of these peas will admix with the other. When one of these is grown with the other it is a total loss. They can not be distinguished at all.

Mr. MANN. Would two peas of those two different varieties sometimes be mixed in selling?

Mr. TRACY. They may be mixed intentionally. A man might not have what is called for and he will fill an order with another pea.

Mr. KNOWLTON. Where does the Department purchase most of its seeds?

Mr. TRACY. From various seedsmen; where we can secure the best product, always considering the standard of the seedsman and the quality of the seeds he handles. In the purchasing of vegetable seed the purchaser is obliged to depend almost entirely on the standard of the dealer. There is no practical way by which it can be detected by the appearance of the sample.

Mr. BARTLETT. I see you have here a sample of watermelon seed. Sometimes you will get a good and bad seed from the same vine.

Mr. TRACY. We have three samples of watermelon seed. One is a small seed and the other two are about like it. We mix the smaller with the larger one, called the "Early Harris," and it would not make a very material difference; but if you mix the other two, one or the other would be useless. If you mix some of the small seeds with some of the large, it would not make any great difference. If you

mix the other, it would be an entire loss of the whole crop of both—that is, the product would not be salable..

Mr. TOWNSEND. What is the object in mixing seed? What does the seller have in mind?

Mr. TRACY. Probably he has an order for one variety, and he can not fill that order. He has some seed of another variety, and by putting them together he can fill the order. Sometimes the crop is short of one variety and is not short of another. In that case he would substitute one for the other.

Mr. MANN. In the last year or two, has the onion seed been plentiful and cheap?

Mr. TRACY. Two years ago it was abundant, but during the last year or two the crop has been very short.

Mr. MANN. How about this year?

Mr. TRACY. It is short this year. People are now speculating on the crop of 1908.

Mr. MANN. Is the old onion seed going out now and being sold?

Mr. TRACY. Yes, sir. Whatever was stored was disposed of last spring.

Mr. MANN. A large amount of it will be placed out as new seed?

Mr. TRACY. It depends upon how honest a dealer is; but a reputable seedsman would not use it.

Mr. MANN. Have you discovered in any of the catalogues that they are advertising old onion seed?

Mr. TRACY. No, sir.

Mr. MANN. They offer it to the trade as new onion seed, but they do not warrant it.

Mr. TRACY. That is frequently done in the seed trade.

Mr. HUBBRAD. Do they say in their advertisements that it is onion seed or that it is new seed?

Mr. TRACY. They say onion seed.

Mr. MANN. Sometimes the advertisement says new seed.

Mr. ESCH. How old can a seed be and still be new?

Mr. TRACY. It depends upon the condition in which it is kept and the condition under which it has been matured.

Mr. ESCH. It would depend upon the individual as to how old the seed might be and still be entitled to the term "new" in the trade.

Mr. TRACY. Some people prefer old cucumber seed, as old as it will germinate. With that vegetable a seed that is from 3 to 5 years old is considered fresh seed. In that case the old seed produces more fruit and less vine.

Mr. MANN. Is that a peculiarity of other seed?

Mr. TRACY. That is the character of cucumber seed.

Mr. MANN. Is not the great value in a great many kinds of seed on account of the location in which it grows?

Mr. TRACY. There is considerable difference in it. That has not been thoroughly established, we find, but there is a sufficient difference so that the price of western-grown sweet corn is from 20 to 40 per cent lower than eastern-grown sweet corn. There are a great many seedsmen in the East who profess not to sell western seed, but they buy a great deal of it. What they do with it we are left to imagine.

Mr. MANN. They buy western-grown seed and sell eastern-grown seed?

Mr. TRACY. They claim that they buy western-grown seed, although they profess not to sell any.

Mr. MANN. Is that same thing true as to many other kinds of seed?

Mr. TRACY. It is true as to some other kinds of seeds. The California-grown onion is not as valuable as the eastern-grown onion.

Mr. MANN. Is not the Connecticut-grown seed higher in price?

Mr. TRACY. Yes; it is higher in price.

Mr. KNOWLTON. Are the eastern onions better than the California onions?

Mr. TRACY. Not when served at the table, but they are not so good for storage and handling.

Mr. KNOWLTON. The eastern product is not so good for eating?

Mr. TRACY. Probably it could not be introduced.

Mr. MANN. A very large proportion of the vegetable seed is grown in California.

Mr. TRACY. The long onion seed is grown there. The peas and beans are mostly grown in the East. Much fine seed is grown in the East. The muskmelon is grown in the Central States and in the Southern States.

Mr. MANN. Some quality of seed to be good must be imported. How about some of the qualities of the cabbage seed?

Mr. TRACY. Cabbage seed of the best quality is produced on the Atlantic coast. The second best is on the northern Pacific coast. Both of these are better than the European-grown seed.

Mr. MANN. How about the Danish ball-head seed?

Mr. TRACY. That particular variety is good. It can be kept better.

Mr. MANN. The same is true as to a certain variety of celery.

Mr. TRACY. The imported celery is superior.

Mr. MANN. So that there is quite a variation as to the location of different seeds and the values are correspondingly different.

Mr. TRACY. Yes, sir.

Mr. ESCH. Do we import large quantities of tobacco seed?

Mr. TRACY. It is not imported in large quantities.

Mr. RICHARDSON. Where is tomato seed raised?

Mr. TRACY. The best quality is grown in northern and western Ohio or in the East.

Mr. RICHARDSON. What is the best grade of tomato?

Mr. TRACY. It would depend entirely on the purpose for which you want to use it. If you wanted it for family use you would need one variety, and if it was for shipping you would need another variety, and for canning still another variety.

Mr. RICHARDSON. For table use?

Mr. TRACY. That for table use would not be best for canning or shipping.

Mr. MANN. In some places they would require one color and in another place they would want another color. In Chicago they want the purple tomato and in the East they want the red tomato.

Mr. TRACY. Yes; in Brooklyn they will not take the white-tipped radish, whereas across the river in New York, they will not take the solid red one, but want the white-tipped radish.

Mr. MANN. In some places they do not want the olive-shaped round radish, and in other places they will not take the long radish. The same is true of lettuce.

Mr. TRACY. The lettuce generally used in the West is hardly salable in the East.

The CHAIRMAN. This alleged superiority in the East as regards the quality of the sweet corn over the western product is imputed to the peculiarity of the soil?

Mr. TRACY. The actual superiority of it has not been well established. It may be due to more careful handling and cleaning than to the difference in variety. The western-grown seed is a little coarser, and consequently a buyer is able to distinguish it and gives the preference to the finer quality of the eastern product.

The CHAIRMAN. The western product has a larger kernel?

Mr. TRACY. Yes, sir; the germ is larger.

Mr. ESCH. Under a recommendation of the Agricultural Department we imported from Russia some new variety of alfalfa seed. Has that been examined by your Department?

Mr. TRACY. I am not familiar with that.

Mr. BARTLETT. Speaking of the adulteration of seed, is it not a fact that the very best seed obtainable will not result as to the character of production, but it will depend a good deal upon the soil, the manner of cultivating the seed, and things of that sort? One man on one side of the road will have the same seed as another man on the other side, but one man will have a different method of cultivation from the other and will get a better result. You can not always expect the result from the seed.

Mr. TRACY. Cultivation is quite as important as the seed. Some seed growers arrange with farmers to plant a certain area with a certain kind of seed, and they pay the farmer a prescribed price per pound or per bushel for all the seed raised. The reason for that is that in certain varieties of peas and beans and in cases of other seed the seed constitutes an important part of the cost of producing the crop, and many of the poorer farmers do not have the seed on hand, and so they are compelled to deal with the grower. Again, many farmers till farms on share leases and the owner of the farm insists upon a seed crop, because a seed crop is not sold in the market promiscuously, but is delivered to the seedsman, and consequently the owner of the farm can be sure of getting his full share of the product. The farmer grower does not as a rule receive for the growing of these seeds quite as much as he would receive for the ordinary crop, and the seedsman controls or tries to control the entire crop.

STATEMENT OF MR. C. A. BRAND.

Mr. MANN. What is your position?

Mr. BRAND. Pathologist, Plant Industry, Department of Agriculture.

Mr. MANN. Have you had under your direction in this connection the subject of the natural mixture of seed? What would you say about that?

Mr. BRAND. A great many seedsmen claim that these adulterants that appear in seed grew there; that they were harvested with the seed which are advertised for sale. It is especially true in cases where yellow medic is mixed in with red clover. A careful canvass of the red-clover growing areas shows a low percentage of this yellow medic.

Mr. MANN. It is a sister plant?

Mr. BRAND. It is a sister to alfalfa. The same is true of yellow trefoil. This, of course, disposes of their claim that the seed comes through natural processes. In some cases it may be due to the malpractice of some previous seedsmen who has sown it with red-clover seed. It is not a weed which will grow in clover for any length of time.

Another claim set up by the seedsmen is that sweet clover is common in other seeds; that they buy seeds now and then from the farmer, and as a consequence no guilt attaches to them for selling seed in that case. In that case there is a good deal of justification.

In the seed areas of the West, especially in the alfalfa areas, sweet clover is found to the extent of from 5 to 60 per cent, and as a general rule it is not distributed in seed, but is incidental to the distribution of seed through irrigation ditches. Sweet clover is harvested and is never sold as sweet clover, but is bought by seedsmen at a lower price than alfalfa seed, and the inference is doubtless correct that it often finds its way into alfalfa as an adulterant. Those are two of the most flagrant cases of adulteration that we have in this country.

Mr. TOWNSEND. Do you know whether the Department has received complaint from farmers over the country in reference to the adulteration of seed?

Mr. BRAND. I know the Department frequently receives complaints.

Mr. ESCH. Since your inspection of seed began has the Department received complaints from farmers as to the quality of seed distributed through Congressmen?

Mr. BRAND. Seed we distribute?

Mr. ESCH. Yes.

Mr. BRAND. We do, frequently.

Mr. ESCH. Do you make an examination of that seed?

Mr. BRAND. All seed is first examined by sample. The sample is secured by seedsmen who bid on the contract. It is on the basis of that sample that purchase is made.

Mr. ESCH. How long has that been the practice?

Mr. BRAND. I have been in the Department a little over four years, and it was in vogue before that time.

Mr. ESCH. Are complaints less than they were formerly?

Mr. BRAND. I can not say as to that. I go about and I hear a good deal of the funny type of joke on the Department's seed, but in all cases that I have traced down where the seed have been sent out it has grown. If properly taken care of it grows.

Mr. TOWNSEND. Have you seed that you actually send out that is adulterated that finally reaches the consumer? How do you account for that?

Mr. BRAND. We do not buy adulterated seed. As I understood Mr. Esch, he asked whether farmers were making complaints concerning the quality of the seed they received. We have no complaint that I know of concerning the seed distributed by the Department.

Mr. TOWNSEND. Is not the Department sometimes imposed upon in the seed they buy?

Mr. BRAND. I have no doubt.

Mr. RICHARDSON. I had a complaint that came from my district, and I wrote to the Secretary of Agriculture about it and sent him the inquiries in the letter which complained of the seed. He an-

swered, as I expected he would, fully to this extent, that he explained the method of the distribution of seed. This complaint came from the secretary of the Union Farmers' Club, stating that in the distribution of seed they had understood that some other place was given a better quality of seed, or that there were discriminations; that the Department of Agriculture had sent some sections a better quality of seed; that certain men here in Congress had gotten a better quality of seed. I submitted that letter to Mr. Wilson, and he said there was not a word of truth in it.

Mr. BRAND. It is absolutely impossible.

Mr. RICHARDSON. I think a particular Member was trying to get credit for a better quality of seed than he was sending out.

Mr. BRAND. All those things are put through the same mill and no man gets any more consideration than any other man.

Mr. RICHARDSON. I understand that.

Mr. HUBBARD. Do you send seed in all cases in the condition in which it is received?

Mr. BRAND. No; it is cleaned perfectly.

STATEMENT OF MR. R. A. OAKLEY.

Mr. MANN. Have you visited fields anywhere to ascertain with reference to the mixing of weed seed with the seed of foreign crops or otherwise?

Mr. OAKLEY. I have. My own work has been along the line of grasses.

Mr. MANN. Orchard grasses especially?

Mr. OAKLEY. I have looked into them somewhat.

Mr. MANN. Give us the result of your inquiries.

Mr. OAKLEY. The bulk of the orchard grasses, as they are commonly known, is produced in the vicinity of Louisville, Ky., and Jefferson and Clark counties, Ind., and in that neighborhood. There is also quite a quantity produced in the Shenandoah Valley of Virginia. I visited both sections a year and a half ago and examined a number of fields. I had personal interviews with all the larger producers and a great many of the smaller producers.

The orchard grass grown in these sections is grown almost entirely in pure culture and is not mixed with any other grass. In the case of the Kentucky blue grass, and in some cases with the Canada blue grass, sometimes the old seed is not harvested with orchard grass and much seed is not produced in the fields for the reason that the seed grows lower than the orchard grass. There have been adulterants of orchard grass with meadow fescue, which resembles the orchard grass close enough to make this adulteration practicable. This grass is found rarely in orchard fields in the orchard-growing sections that I visited.

Mr. MANN. Then, your observation was that orchard grass where seed is produced is practically clear of adulteration?

Mr. OAKLEY. Remarkably clear.

Mr. MANN. How about the other classes of seed?

Mr. OAKLEY. In case of the Canada blue I visited the seed-producing sections in Canada and got information in regard to the management at a great many points in relation to the mixture with Kentucky blue.

(At 11.50 o'clock the committee adjourned.)

COMMITTEE ON INTERSTATE AND FOREIGN COMMERCE,
Tuesday, April 21, 1908.

Committee called to order at 10.35 a. m., Hon. James S. Sherman in the chair.

STATEMENT OF MR. GEORGE S. GREEN, OF CHICAGO, ILL., PRESIDENT OF THE AMERICAN SEED TRADE ASSOCIATION.

Mr. SHERMAN. Mr. Green. Mr. Mann suggests that you take charge of the hearing so far as to indicate whom you desire to have heard first and in what order. Do you desire to proceed without limit of time, or shall I call your attention to the time at the end of a certain period?

Mr. GREEN. If you will give me twenty minutes, I think I can come within that.

Mr. Chairman and gentlemen, we are before you this morning in relation to this bill submitted by Mr. Mann (H. R. 13835). We come simply as business men, not trained in the presentation of a cause like this before such a committee. We ask your forbearance as to our omissions and errors; we ask you to take the spirit of what we have to say, and to realize that as we are business men, we could hardly be expected to state our case as fully and as clearly as a member of your committee would.

We feel that we are members of a trade the business of which is built upon honor and reputation perhaps more largely than that of most trades. The man who puts our seed into the ground waits for his harvest, and in many instances he makes no test, in some instances he is powerless to make any tests; he deals with his seedsman feeling that he will receive fair treatment. And I want to make a strong point here of the fact that careful investigation among several of the leading houses of the trade reveals the fact that more than two-thirds—many of our dealers say fully three-quarters—of their business consists of orders from people who have bought goods from them in previous years. This indicates, we think, a more than fair average standard of morality in the trade.

This bill, particularly the report on this bill, calls our attention to a fact that is not entirely new to us, that there are important abuses in our trade, that there are dishonest men in our trade. I, as president of the Seed Trade Association, have had correspondence during the past month with many members of our association, and I will say frankly that the consensus of opinion expressed in that correspondence indicated that the sentiment of the trade is strongly in favor of careful and well-considered legislation, which will regulate, and in so far as may be, abolish, such abuses.

Mr. ADAMSON. Is it not a very healthy state of commerce in any line, when houses engaged in any important business can, year after year, sell to the same clientele or patrons?

Mr. GREEN. That is what we feel.

As I was saying, I feel sure that the consensus of opinion, as expressed in this correspondence that I have had, is in favor of careful and well-considered legislation which will regulate or abolish these abuses. We hope for much from a well-considered seed law.

We have found, upon a careful reading of this bill, much to object to in the practical workings of the bill as we understand it. We felt

that it would be absolutely impossible to conduct our business in strict conformity with its provisions. There were requirements which we felt, considering the inherent nature of the seeds, their varying vitalities, and the crop conditions attending their production and their use, would make it difficult, if not impossible, to conform strictly to the provisions of the bill. Therefore, feeling as we did and believing that this was to a great extent untried legislation (although something similar had been tried in other lines of business), what first arrested our attention was the extremely heavy punishment provided in the bill for offenses which might, and which we felt in practice would, undoubtedly occur through errors or omissions of principals or employees in the packing and marking and handling of seeds. We felt that this would in effect make well-meaning and innocent men criminals in the eye of the law, and we felt that this was repugnant to the spirit of fairness which we believe should exist in all law. We felt, and we now feel, that before such heavy penalties are imposed evil intent should be shown. How that can be done legally, how the bill can be made forceful, but yet protect the well-meaning man, we leave to you, gentlemen; we can not take care of that ourselves. But we protest vigorously against the possibility of punishment, especially the prison penalty, for a man who has meant to do no wrong.

Among the practical features of the bill, or among the features where we felt that the conduct of our business under the bill would be extremely difficult, are a number which have been to quite an extent cleared up at a preliminary conference yesterday with Mr. Mann, the author of the bill. Mr. Mann met us in a spirit of fairness and justness which highly encouraged us. He seemed to recognize some of the difficulties of our business that we felt had been overlooked in the original draft of the bill; and while of course I have no authority to say that Mr. Mann has actually agreed to changes, yet we feel that his mind is favorable toward the acceptance of changes in this bill which will remedy some, but not all, of the objections that we find to it as business men.

MR. RICHARDSON. Will you point out wherein you and Mr. Mann agreed?

MR. GREEN. To do that will require a little more time.

MR. RICHARDSON. How can we get the nature of that agreement, then?

MR. MANN. I suggest that when you get through, Mr. Green, you leave with the stenographer, which you did not bring to us at the time of your argument, the amendments which you desire to have made to the bill.

MR. GREEN. I was about to say that after this conference with Mr. Mann we left with him an annotated copy of the bill embracing the amendments that we would like to see incorporated in the bill. Some of those Mr. Mann seemed to approve, while others he did not. In leaving that draft of the bill, however, I should say that section 6 has not been considered with sufficient care by our membership or by our committee; but I will pass that point for the time.

MR. MANN. Have you with you an accurate copy of that which you left with me?

Mr. GREEN. Accurate so far as the circumstances under which it was made would permit, a copy which I believe to be practically accurate.

Mr. MANN. I would like to get one of them in the record. I will put the one I have in the record if you haven't one to spare.

Mr. GREEN. Very well.

Mr. KENNEDY. You seem to think that the provisions of this bill are such that an honest man could not always comply with them even though he tried?

Mr. GREEN. Yes; as originally drawn, but I would like to make myself clear on that point. He could comply with them, but I think he would have to go out of the seed business.

Mr. KENNEDY. But if all competitors would comply, he would be on an equality still, would he not?

Mr. GREEN. I do not think that the whole volume of traffic in seeds could be economically handled, the whole volume of trade as we now know it, under the same conditions as it is now handled, under the provisions of the original bill.

Mr. MANN. I might take the liberty of saying to the committee that nearly every objection made by Mr. Green and his associates, to the bill, as I understand it, is as to the construction of the bill, which personally I did not think the bill bears; but as there is doubt about the meaning in some cases it is probably better to clear it up in advance, rather than to try to determine the judicial construction afterwards.

Mr. GREEN. Well, for instance, we thought that there were some things, at least, made clear in Mr. Mann's report that we could not find in the bill.

Mr. SHERMAN. You have spoken for twenty minutes, Mr. Green, and you can proceed longer or not as you wish.

Mr. ADAMSON. Then, according to your last answer, the report was better than the bill?

Mr. GREEN. No; I do not think it ought to be put in that way, but the report, gentlemen, was bad enough.

Mr. ADAMSON. Do you mean that the bill was worse than the report?

Mr. GREEN. No; you are putting me on record in a rather embarrassing way.

Mr. WANGER. Would it not be well to give us something specific?

Mr. HUBBARD. Yes; why not let the changes be stated.

Mr. WANGER. You have spoken in general terms, without calling our attention to any particular thing in regard to the bill.

Mr. RICHARDSON. Am I to understand that this bill applies to all kinds of seed that is grown in the ground—garden seed, flower seed, and everything?

Mr. GREEN. I should think it would apply as originally drawn to practically all kinds of seed.

Mr. RICHARDSON. Up to this time you have only called our attention to the penalty clause, under which you can put a man in prison as well as fine him, one or both?

Mr. GREEN. Yes. I will ask permission to go through the bill.

Mr. MANN. Mr. Chairman, I think that will be almost endless, because I have spent a whole day with these gentlemen, and I would

suggest that while Mr. Green and the other gentlemen may give reasons for making certain changes, the various and large number of changes which are suggested might better be printed in the record, where all the members of the committee can have full chance to consider them when the bill comes up in the committee.

MR. SHERMAN. Have you what you are about to state in writing, Mr. Green?

MR. GREEN. As to the proposed changes; yes.

MR. SHERMAN. Mr. Mann suggests, then, the advisability of your handing that to the stenographer rather than occupying our time now with the reading of it.

MR. GREEN. That is satisfactory to me; I think that is wise. What I will hand to the stenographer is simply the redrafted bill, or the annotated bill, without reasons for the changes.

A BILL To regulate commerce in adulterated and misbranded seed and to prevent the sale or transportation thereof, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the introduction into any State or Territory or the District of Columbia from any other State or Territory or the District of Columbia or from any foreign country of any seed adulterated or misbranded, within the meaning of this act, is hereby prohibited; and any person who shall knowingly and willfully ship or deliver for shipment from any State or Territory or the District of Columbia to any other State or Territory or the District of Columbia, or who shall knowingly and willfully receive in any State or Territory or the District of Columbia from any other State or Territory or the District of Columbia or foreign country, and having so received shall knowingly and willfully deliver or offer to deliver, in original unbroken packages, for pay or otherwise, to any other person any seed adulterated or misbranded within the meaning of this act, or any person who shall knowingly and willfully sell or offer for sale in the District of Columbia or any Territory of the United States any such adulterated or misbranded seed, shall be guilty of a misdemeanor, and for such offense be fined not exceeding \$100 for the first offense, and after conviction for said first offense for each subsequent offense not exceeding \$300. The Secretary of Agriculture shall make uniform rules and regulations for carrying out the provisions of this act, which shall be effective only after six months' publication.

SEC. 2. That the term "seed" as used in this act shall include all cereal, grass, clover, and forage plant intended for seeding purposes, but the provisions of this act, except as to the importation of seed prohibited entry under this act, shall not apply to seed in transit or held in storage for the purpose of being cleaned, or graded, or to seed in process of cleaning or grading, or to seed stored after cleaning or grading, before being offered for sale for seeding purposes.

SEC. 3. That for the purposes of this act seeds shall be deemed to be adulterated—

First. If seed purporting to be orchard grass seed contain more than 5 per cent of seed of rye grass or meadow fescue; if seed purporting to be Kentucky blue grass seed contain more than 5 per cent of seed of Canada blue grass; if seed purporting to be red clover seed contain more than 2 per cent of seed of yellow trefoil; if seed purporting to be alfalfa seed contain more than 5 per cent of seed of yellow trefoil, burr clover, and sweet clover, singly or combined; or if any seed purporting to be of one kind or variety contain more than 5 per cent of another kind or variety, such other seed being similar in appearance and of lower market value and which is used as an adulterant: *Provided*, That no seed shall be deemed adulterated within the meaning of this paragraph when it is accompanied by a statement or label in the form and manner prescribed by the rules and regulations in this act provided for, giving the total percentage of purity and a list of the principal distinguishable kinds or varieties of seeds contained therein: *And provided further*, That no seeds or bulbs shall be deemed adulterated within the meaning of this act, in the case of mixtures or blends, when accompanied by a statement or label in the form and manner prescribed by the rules and regulations in this act provided for, stating plainly that they are mixtures or blends of two or more varieties of seeds

or bulbs, and in such cases it shall not be necessary to disclose the names and amounts or proportions of the kinds or varieties of seeds contained therein: *And provided further*, That nothing in this act shall apply to seeds sold by sample, where no misrepresentations are made; and this last clause shall only apply to interstate traffic and not to seeds prohibited of entry from foreign countries.

Second. If seed of red clover, alsike clover, alfalfa, or Egyptian clover contain more than a trace of seed of dodder; or if any seed contain weed seed, rendering it unfit for seeding purposes: *Provided*, That the provisions of this paragraph shall extend only to seed imported from a foreign country.

Third. If any seed or bulbs contain, respectively, an unusual or exceptional percentage of dead seeds or bulbs or other matter, reducing its quality below a normal average for the current season in the country where grown for the variety in question: *Provided*, That this paragraph shall extend only to seed and bulbs imported from a foreign country.

Fourth. If there shall be knowingly added to seed any weed seed or dead seed, or any other matter materially reducing its value for seeding purposes: *Provided*, That this paragraph shall not apply to the mixing or blending of seed not otherwise adulterated within the meaning of this act.

SEC. 4. That for the purposes of this act seed shall be deemed to be misbranded—

First. When seeds of one definitely distinguishable kind or named variety shall be substituted for or offered for sale under the name of another definitely distinguishable kind or named variety.

Second. If in package form, and the contents are stated in terms of weight or measure, they are not plainly and correctly stated.

Third. If the article be falsely labeled or branded as to the State, Territory, locality, or country in which it is raised or produced.

Fourth. If any branded box, bag, or other container is used for any other seed of the same kind which is sold in or from said container for the purpose of deceiving the purchaser.

SEC. 5. That no dealer shall be prosecuted under the provisions of this act when he can establish a guaranty signed by the wholesaler, jobber, or other party residing in the United States from whom he purchases such articles, to the effect that the same is not adulterated or misbranded within the meaning of this act, designating it. Said guaranty to afford protection shall contain the name and address of the party or parties making the sale of such articles to such dealer, and in such case said party or parties shall be amenable to the prosecutions, fines, and other penalties which would otherwise attach in due course to the dealer under the provisions of this act.

SEC. 6. That the Secretary of the Treasury shall deliver to the Secretary of Agriculture, upon his request, from time to time samples of seed being imported into the United States or offered for import, giving notice thereof to the consignee, within two days after the receipt of the seed by the custom officials at the port of entry, who may appear before the Secretary of Agriculture and have the right to introduce testimony at such time, within ten days after service of said notice upon him, and if it appear from the examination of such samples that any seed offered to be imported into the United States is adulterated or misbranded within the meaning of this act, or is otherwise falsely labeled in any respect, or is intended solely for adulteration purposes, the said seed shall be refused admission under such regulations as the Secretary of the Treasury may prescribe: *Provided*, That the Secretary of Agriculture shall render his decision and give notice thereof to the consignee within ten days after the expiration of the time allotted to said owner or consignee to appear and introduce testimony as aforesaid: *And provided further*, That the Secretary of the Treasury may deliver to the consignee such seed, pending examination and decision in the matter, on execution of a penal bond for double the amount of the full invoice value of such seed, together with the duty thereon, and on refusal to return such seed for any cause to the custody of the Secretary of the Treasury when demanded, for the purpose of exclusion from the country, or for any other purpose, said consignee shall forfeit the full amount of the bond.

SEC. 7. That the term "Territory" as used in this act shall include the insular possessions of the United States. The word "person" as used in this act shall be construed to import both the plural and the singular, as the case demands, and shall include corporations, companies, societies, and associations. When construing and enforcing the provisions of this act, the act, omission, or

failure of any officer, agent, or other person acting for or employed by any corporation, company, society, or association within the scope of his employment or office, shall in every case be also deemed *prima facie* to be the act, omission, or failure of such corporation, company, society, or association as well as that of the person.

SEC. 8. That this act shall be known, described, and designated as the pure seed act of 1908.

SEC. 9. That this act shall take effect and be in force upon the expiration of six months after its passage.

MR. MANN. On that account, Mr. Chairman, it would be well for the committee to have the bill, with the amendments which have been suggested by Mr. Green, printed.

MR. SHERMAN. Very well; if there is no objection that will be done.

MR. MANN. And that it may also be inserted in the record.

I would suggest to you, Mr. Green, that either yourself or some other member of your association should give us the reasons why you want these changes made.

MR. GREEN. Well, gentlemen, we want the bill changed to read to "who shall knowingly and willfully" do these things, for the reasons that I have stated. We want the punishment so applied that a man will not be imprisoned for an offense under an untried law, which may occur through errors or omission of his employees.

MR. BARTLETT. In other words, you want penalty instead of punishment?

MR. GREEN. Penalty instead of imprisonment punishment; and we felt that the punishment for the subsequent offenses after the first should be incurred only either after conviction or after indictment for the first offense, so that a man who thought he was conducting his business legally and found that he was not would not have repeated penalties piled up on him.

In section 2, applying to all seeds, we feel that from the provisions of that section should be excepted vegetable and flower seeds and bulbs, on account of the difficulties in making satisfactory regulations with regard to them. There are other gentlemen who will go into that more in detail, but this section 2 of the annotated and amended bill suggested to Mr. Mann reads as follows:

SEC. 2. That the term "seed" as used in this act shall include all cereal, grass, clover, and forage-plant seeds intended for seeding purposes; but the provisions of this act, except as to the importation of seed prohibited entry under this act, shall not apply to seed in transit or held in storage for the purpose of being cleaned or graded, or to seed in process of cleaning or grading, or to seed stored after cleaning or grading, before being offered for sale for seeding purposes.

That, I think, is Mr. Mann's thought expressed in words of ours, the change from the original bill being made for the reason that under the original bill, as we understand it, unclean seed could not be shipped across a State border to the great cleaning warehouses, where most of the weeds in this seed are removed, thus making it fit for seeding purposes. Great stress has been laid on the importation of vile seed. We feel that in the operations of the great cleaning houses of this country more weed seed are removed from seeds grown in this country than are ever imported, and far more than are ever used as adulterants. I believe that in these great seed warehouses fully 95 per cent—I think I could go much higher than that—of the weeds that come to them in the country seed are removed and sold as waste matter; that the seed goes out from these warehouses cleaner, far

more fit for seeding purposes, and far more useful in every way than it comes into them. The bulking and grading are necessary adjuncts, and if you legislate these cleaning establishments out of existence you remove the most potent agency in this country for freeing the country from weeds.

Mr. WANGER. You suggest an exception, then, where seeds are intended to be forwarded to the cleaning houses?

Mr. GREEN. Yes; seeds for the purpose of being cleaned should be excepted wherever this law would otherwise apply to them.

There are certain changes in section 3 that are matters of detail and which have practically been agreed upon with Mr. Mann.

Mr. MANN. Now, remember that I am not the committee; do not make any mistake about that.

Mr. GREEN. That is quite true.

Mr. MANN. I made no agreement, and you put too much responsibility upon me.

Mr. GREEN. Oh, I understand that. There was no agreement.

Mr. ADAMSON. Of course you would not want to put words in his mouth that he would not be bound by.

Mr. GREEN. I understand that.

In section 3 it was thought that there should be an insertion of the word "five" instead of "two" on the twenty-fifth line of page 2, and that would make the man of innocent intent less likely to suffer, and that no person would adulterate seed for the sake of the profit which might be gained from putting so small a percentage as 5 per cent in the seed. There would be no possible profit in that which would compensate for the deterioration in the quality of the seed.

Mr. MANN. As I remember it, in talking with me, you desired 5 per cent in every case excepting in the case of the red clover and the yellow trefoil seed.

Mr. GREEN. Yes. The value of the red clover is so high and the possibility of the two growing together is so limited as to percentage, that we thought it unnecessary to provide leeway of more than 2 per cent in that instance.

Mr. ADAMSON. The effect of the 2 per cent, if allowed, is itself an admission of the possibility of incidental and accidental adulteration that you think ought not to be made criminal.

Mr. GREEN. That is the point.

Mr. ADAMSON. Then it is a question of judgment and ought to be arbitrarily decided just what per cent that ought to be.

Mr. GREEN. Yes; that is a matter for the lawmakers to decide.

Mr. ADAMSON. That is a matter of judgment; it might be fixed at 5 or 7 per cent just as well as 2 per cent.

Mr. GREEN. Yes.

Mr. HUBBARD. What are the two seeds as to which 2 per cent is thought to be the proper limit?

Mr. GREEN. A mixture of red clover and yellow trefoil seed.

Mr. HUBBARD. You are willing to let the bill stand as it is in respect to those two seeds?

Mr. GREEN. Yes, sir; the thought being that the difference in the value of the two seeds is so great that the raising of that limit to 5 per cent might be a temptation to a man who wanted to come just within the limit of the law. We do not want any adulterants used.

Mr. LOVERING. How do you detect the presence of 5 per cent in red clover?

Mr. GREEN. It is very difficult of detection, but trained men that know the seeds can tell, undoubtedly, in the case of yellow trefoil and red clover by the shape of the seeds.

Mr. LOVERING. And the average man would depend upon the opinions of those trained me?

Mr. GREEN. Yes.

Mr. RICHARDSON. You say that you want to strike out the garden seed. We would like to hear you give the reasons why this should not apply to garden seed as well as red clover seed. More garden seed are used than clover seed?

Mr. GREEN. In a general way the reasons for that are that the conditions of production and distribution of the two classes of seed are different. Grass seeds are grown on great areas, and are grown under what you might call natural conditions as distinguished from artificial conditions. I realize that that is not a clearly defined difference there, but the garden seeds receive more careful personal attention. Plants of a different kind can be pulled out by hand; the fields can be "rogued," as the term is.

Mr. TOWNSEND. Can you tell the difference between the different varieties of radish seed, for instance, by looking at the seed?

Mr. GREEN. I will ask Mr. Vaughn to answer that.

Mr. VAUGHN. No; you can not.

Mr. TOWNSEND. Do you understand the provisions of section 3 so as to explain them fully?

Mr. GREEN. Gentlemen, I am not a garden seed man. Mr. Stokes, can you answer—

Mr. TOWNSEND. Never mind, he may answer the questions later, and you can go on with your statement. Do you know about clover seed?

Mr. GREEN. Yes, sir.

Mr. TOWNSEND. Can you tell the difference between the large variety, the giant variety of red clover, and the small variety?

Mr. GREEN. No; I can not, and I do not think anyone else can.

Mr. TOWNSEND. Do you understand that this bill makes it a crime to sell the small variety for the large variety?

Mr. GREEN. That would depend upon the construction of the first paragraph of section 4.

Mr. TOWNSEND. Do you refer to the words "distinguishable named variety?"

Mr. GREEN. "When one kind or distinguishable named variety of seed or bulbs," if that section means distinguishable as seeds, there is no crime under this bill for the sale of the two. If it means distinguishable as to the product, there is a crime, a crime which no man on earth could be safeguarded from committing. We are dependent entirely upon the word of the farmer who brings this to the market. No living man can tell the difference between the two, and, as you know, some farmers are not truthful.

Mr. RICHARDSON. And do you not think it is true that some men who sell seed are not truthful?

Mr. GREEN. I know that.

Mr. TOWNSEND. Supposing you put the word "distinguishable" before the word "kind?"

Mr. GREEN. That would not help in the case of the Mammoth Clover, but we think it should be before the word "kind," and in re-writing it we have placed it there.

In that same first section the difficulty of complying with the exact regulations in lines 14, 15, and 16 seem to be very great to us, and we have suggested a change of wording, which will appear in the record. I do not think we should take up time on that.

In paragraph 2 we wish to have inserted, after the word "contents," the words "more than a trace of seed," for the reason that in scarce years in this country—such as the last two years—a sufficient quantity of foreign clover seed can not be obtained which is strictly free from dodder. Dodder seed can be cleaned out from clover to a very large extent, and what remains in it after careful and thorough cleaning is a very small percentage.

Mr. HUBBARD. Can you state that percentage?

Mr. GREEN. No; I could not state it. But I should think it would not be more than one-half of 1 per cent, and very likely in most instances not more than one-tenth of 1 per cent.

Mr. MANN. You stated to me that you would not want for a moment to have one-tenth of 1 per cent adulteration.

Mr. RICHARDSON. What do you mean by dodder?

Mr. GREEN. Dodder is a parasitic plant that grows from seed and attaches itself to the stems of red clover, thriving upon the clover plant, and kills its host. It is a very troublesome weed in many sections of Europe. In some sections of this country we do not think it thrives, though perhaps in others it may.

Mr. RICHARDSON. How can the purchaser by vigilance and care avoid that? You say that it fastens itself to the plant.

Mr. HUBBARD. He can clean it out.

Mr. GREEN. He can avoid the production of the seed.

Mr. RICHARDSON. But if the dodder seed is in there, how can he avoid it?

Mr. GREEN. He can avoid it best by not sowing seed with it in there. After it is started the only way would be to cut out the patches where the dodder has appeared.

Mr. RICHARDSON. Just as you would cut off a limb that has the gout on it?

Mr. GREEN. Yes.

There is one point in this bill that I have not taken up, and that is we feel that all reference to the export of seed should be eliminated throughout the bill. We believe that that tends toward the sowing in this country of inferior qualities within the States; that it takes the cream of our produce for the exporter and for foreign countries. We believe that the foreign buyer should be left, so far as our laws are concerned, a free agent, and that we are not called upon to exercise paternal care over the foreign buyer.

The third paragraph of section 3 was a stumbling block to us as originally worded. We could not see how the import business, which is so necessary in a great many varieties of vegetable and field seed, could be conducted under that paragraph. We have suggested this substitute:

Third. If any seed contain, respectively, an unusual or exceptional percentage of dead seeds or other matter, reducing its quality below a normal average

for the current season in the country where grown for the variety in question: *Provided*, That this paragraph shall extend only to seed imported from a foreign country.

The object of the change in that clause is to permit the importation of highly necessary varieties of vegetable, flower, and field seed, all of which contain normally, and without adulteration, certain percentages of dead or unfertile seed.

Mr. HUBBARD. Can the maximum of those percentages be fixed? It would be difficult, I think, to convict anybody violating such a section as you have there expressed. If you will fix a maximum percentage, then if there is a violation conviction would be easy.

Mr. GREEN. The maximum percentage would differ in each variety of seed, and would differ in each season, and might differ in the same season, according to crop conditions in the country where the seeds were grown. Vegetable seed is contracted for in advance in countries where the weather conditions influence the character of the product, especially as to the percentage of dead seed.

Mr. MANN. This provision, anyhow, is practically only a direction to be followed by the Secretary of Agriculture under section 6 of the bill as you have it now; it only relates to import seed, and something to be adopted at a port of entry in accordance with this provision, so that it is not a matter relating to conviction. You desire to have a new provision put in, do you not?

Mr. GREEN. Yes; we desire to have a new provision put in reading this way:

And provided further, That no seeds shall be deemed adulterated within the meaning of this act, in the case of mixtures or blends, when accompanied by a statement or label in the form and manner prescribed by the rules and regulations in this act provided for, stating plainly that they are mixtures or blends of two or more varieties of seeds, and in such cases it shall not be necessary to disclose the names and amounts or proportions of the kinds or varieties of seeds contained therein.

That provision is intended to cover the sale of lawn mixtures and of pasture mixtures.

And we further desire the addition of the following sentence:

And provided further, That nothing in this bill shall apply to seeds sold by sample where no misrepresentations are made; and this last clause shall only apply to interstate traffic and not to seeds prohibited of entry from foreign countries.

We do not want to leave a loophole in that for the importation of objectionable stuff that has been coming from Europe.

(Adjourned at 11.30 a. m. to meet again at 2.30 p. m.)

AFTER RECESS.

The subcommittee reassembled at 2.30 o'clock p. m., pursuant to adjournment, Hon. James R. Mann (chairman) presiding.

Mr. GREEN. In the remainder of section 3 and in section 4 the changes that have been asked for are quite fully covered by the annotations in the bill that has been filed with the committee. I wish now to call on Mr. Charles Dickinson, vice-president of the Albert Dickinson Company, of Chicago, to take up the consideration of section 5 of this act and present some other features of the law.

STATEMENT OF MR. CHARLES DICKINSON, OF CHICAGO, ILL.

Mr. DICKINSON. Section 5 of this bill provides "That no dealer shall be prosecuted under the provisions of this act," and so on. I will not read it all. It provides for a warranty, for a guaranty. In the business of grass and field seeds, and also, I should judge, in the wholesaling of other seeds, the volume of traffic would be so large in dollars and cents that to furnish a guaranty would be unsafe unless the working margin in the business were greatly increased to cover risk caused by giving such guaranty. In what way or manner a business which has been conducted for all these years on margins of 1, 1½, and 2 per cent, as has been the case in the grass and field seed line, can be changed and a guaranty given with safety I do not know. It seems impossible, for our trade runs into several millions per year, and the goods come in in the autumn and go out so quickly that the question of the dead seeds and the question of the condition of the same in a season when nature does not furnish the proper conditions for maturing a crop to its highest degree of perfection is very difficult; which causes me to read a few extracts which I have taken from a hearing held in England in 1901, I believe:

In a year without sun unripe seeds are more common. In some years seeds come with hard shells. Consider fourteen days for clovers and twenty-eight days for grasses for useful opinion as to germination. I do not believe in the possibility of testing the germination of seed, a natural product, as accurate as a chemist can analyze an inorganic compound. Chemical is finite, and definite biological totally different. You can not get definite lines and results of inquiry as in inorganic or chemical investigations. There is a difference in growth, top and bottom of sack. Oftentimes this would come from the heavier of smoother seeds working to the bottom by the frequent handling of the sacks. Sampling is simple for practical trade purposes, but useless for legal requirements. A certain amount of variation in all living organisms. Seeds have a period of rest, in which they do not germinate so well. Some grow after they fall from the parent plant; some grow better in the winter and the spring than in the autumn. Farmers should not be exempt from the same law as applies to seedsmen. A question was put: "Do you consider farming a business?" The reply was, "Yes."

In my own opinion it is.

Mr. MANN. What are you reading from?

Mr. DICKINSON. I am reading from "Minutes of the evidence taken before the departmental committee appointed by the board of agriculture to inquire into the conditions under which agricultural seeds are at present sold." This is dated, on the outside page, 1901.

Mr. LITTLEFIELD. Are you reading from the report of the Commission, or from the report of the testimony given?

Mr. DICKINSON. I do not know that I understand the question so that I can answer it correctly. I read from the report. I copied these statements from it as covering what we had to take care of under this seed bill. The last quotation here is to the effect that there is much more difference where seed is 50 or below than where seed is 95 and above, for the reasons given in regard to unripe seeds and hard shells and other conditions.

The other points that I wish to bring up are to see that the bill does not prevent the bringing into the country of any seeds that are in an unclean condition, so long as they do not have bad or weed seeds in them, to enable a merchant to go into the different parts of the world and buy seeds with the chaff and dirt and the conditions

in which they come from a farmer and bring them into the United States, so long as they do not bring any noxious seeds at the same time. That covers the point.

Mr. MANN. You say that you ought not to be required to guarantee the seeds. Do you think that it is fair for you to sell seed labeled a certain kind of seed and have no responsibility in connection with it as to whether it is that seed or not?

Mr. DICKINSON. We have had a moral responsibility for the thirty-five years I have been in business, all the time.

Mr. MANN. Do you think you should have no legal responsibility?

Mr. DICKINSON. We endeavor to keep our standard on such a basis that if there was a legal responsibility we would not come under it.

Mr. MANN. Do you think that any seedsman should be allowed to sell seeds of a certain kind without any responsibility as to whether it is that kind of seed or not, except the mere honor, the moral responsibility? Is that your position? I want to get it in the record, whatever it is.

Mr. DICKINSON. I think if there is shown to be knowingly and willfully an intention to defraud the purchaser the man should be punished legally, morally, in any way that is necessary.

Mr. MANN. That is practically saying that you do not think there should be any responsibility.

Mr. DICKINSON. I did not consider that my answer made it as broad as that.

Mr. MANN. I should hardly suppose that any seedsman would take the position that he should have no responsibility in selling a thing. The common law applies in most things.

Mr. DICKINSON. In our line of business we buy and sell grass and field seeds, and the margins are so small, and have been for all these years, that to answer the question in regard to the grass and field seed would not be the same as on flower seed.

Mr. MANN. You sell a man a Kentucky blue-grass seed. Do you think you should have no responsibility as to furnishing blue-grass seed, and that there should be nothing to make you sell him Kentucky blue-grass seed except the mere fact that he will not buy from you again if you do not?

Mr. DICKINSON. Knowingly we have never sold any seed as Kentucky blue-grass seed that was not Kentucky blue-grass seed.

Mr. MANN. I did not suppose you did. If I supposed you did, I would not ask the question in the way I did, by any means. But do you think you ought to have no responsibility as to whether you sell a man Kentucky blue-grass seed when he buys Kentucky blue-grass seed and pays for Kentucky blue-grass seed?

Mr. DICKINSON. But where we buy the blue-grass seed from the grower or the dealer in Kentucky, and our experience and judgment is such that we are confident it is the Kentucky blue grass, and the buyer is ignorant whether it is Kentucky blue grass or not, he takes our judgment. As to whether that should constitute a guaranty, if the laws says we must guarantee we will have to obey the law or else go out of business.

Mr. MANN. Do you say in making sales, "This is Kentucky blue grass in our opinion," or "We think what we send you is Kentucky blue grass," or do you sell Kentucky blue-grass seed as Kentucky

blue-grass seed? Do you give it as a matter of opinion, or do you sell it as though it was the thing itself?

MR. DICKINSON. If a man asked me, and I was showing him Kentucky blue grass, and it was sold by sample, I should tell him we had bought it as Kentucky blue grass, and that we had handled these goods for years, and therefore it was true to name.

MR. MANN. Do you think there should be any responsibility?

MR. DICKINSON. We consider there is responsibility there when we fill the order.

MR. MANN. I understood you to say that you did not wish to assume any responsibility.

MR. DICKINSON. As to giving a written guaranty; I think I am right in making the statement. And I do not think we would be warranted in doing it, because the margins do not warrant it.

MR. HUBBARD. Is it possible for you to tell whether it is Kentucky blue-grass seed or not?

MR. DICKINSON. I would consider that it was.

MR. HUBBARD. It is not possible for the buyer to do that ordinarily, is it?

MR. DICKINSON. Most small buyers would not have the knowledge.

MR. HUBBARD. If you can not tell whether it is Kentucky blue grass or not, and do not exercise your ability to determine it, or exercising your ability you send him as Kentucky blue grass what a dealer knows is not Kentucky blue grass, there ought to be some additional liability, ought there not, in addition to the possibility that that man will not buy from you next time?

MR. DICKINSON. We do exercise our ability in buying the goods in knowing that it is Kentucky blue grass. We put our good name, of thirty or forty years' standing, behind the things we sell him.

MR. HUBBARD. I understand you have the very best name in the country, or a name as good as any, in that respect; and that is true of all dealers, perhaps. Here is a dealer that a man tries to buy Kentucky blue grass from, and that dealer can tell whether what he is furnishing is or is not Kentucky blue grass, but the buyer, being a small buyer, can not tell whether it is or not. Ought not the dealer to be responsible to the man that buys from him to an extent beyond the mere probability that that man, having found that he has been deceived, will not buy from him a second time?

MR. DICKINSON. I believe in his being responsible to the extent of a fine, but I do not believe in making a man responsible for a prison offense.

MR. HUBBARD. Suppose he knowingly does it, ought it to be a prison offense?

MR. DICKINSON. If he continued, knowing it to be an offense.

MR. HUBBARD. If he knew it the first time, ought he not to be imprisoned?

MR. DICKINSON. If he did it himself, personally, I should not object to that. If the employer did it knowingly, and it could not happen by accident.

MR. HUBBARD. Suppose his employee did it knowingly, ought the employee be imprisoned?

MR. DICKINSON. I should think not, because the employee would not do it without orders. The imprisonment should go to the man that gave the orders.

Mr. HUBBARD. If it was done, it would be done either by the employee or by the principal knowingly. Ought whichever of them who caused the thing to be done knowingly to be imprisoned?

Mr. DICKINSON. According to the character of the man and the facts of the case. That is the only way in which I can answer that.

Mr. HUBBARD. You think a good man ought to be allowed to do it with impunity and a bad man not; is that it?

Mr. DICKINSON. If a good man goes wrong, and he was drunk when it happened, I would not send him to jail.

Mr. HUBBARD. You would long enough for him to sober up, would you not?

Mr. MANN. If he happened to commit an assault upon you under such circumstances, I suppose you would be willing to have the Government send him to jail, would you not?

Mr. DICKINSON. I have not done that in some cases.

Mr. MANN. You have not done what?

Mr. DICKINSON. I have not sent them to jail when they have done it, when they were drunk.

Mr. MANN. Is there anything else?

Mr. DICKINSON. No; I was through before you started.

Mr. GREEN. We have a letter from the president of the Seedsmen's League, a kindred organization to the American Seed Trade Association. Mr. Henry W. Wood, of Richmond, Va., has that letter and will read it.

Mr. MANN. From whom is the letter?

Mr. WOOD. It is from Mr. Bruggenhof, of the firm of J. M. Thorburn & Co.

Mr. MANN. I have 50 or 100 letters here which I am going to have printed.

Mr. GREEN. Mr. Wood will also discuss section 6 of the bill.

STATEMENT OF MR. HENRY W. WOOD, OF RICHMOND, VA.

Mr. WOOD. This letter was addressed to the Committee on Interstate and Foreign Commerce, before we knew that we were to appear before your committee. It reads as follows:

The Honorable COMMITTEE ON INTERSTATE AND FOREIGN COMMERCE.

GENTLEMEN: The above-entitled bill, introduced by the Hon. James R. Mann, of Illinois, January 15, 1908, and reported with amendments March 20, 1908, Eas for its object and purpose: "To regulate commerce in adulterated and misbranded seed and to prevent the sale or transportation thereof, and for other purposes."

If it were possible, I wish that legislation on this important subject could be postponed until the contents and provisions of the proposed bill could be more thoroughly digested by the seedsmen generally and their suggestions presented as a help to the honorable committee to whom it was referred. The notice of the proposed legislation comes to us at a time of year when our entire strength and energy are required to meet the demands of the trade and the consumer, working oftentimes with double shifts and every night and all night to keep up with the orders. For this reason I am personally denied the honor of meeting with the honorable committee and those of my confrères in the seed business, and must therefore content myself to reduce to writing, in an imperfect way, such suggestions and thoughts as occur to me as being helpful and germane to the issue involved.

Willful adulteration of any commodity is vicious and unrighteous, whether it be seed or anything else, and so far as the proposed bill is intended to control such practice it is good. Some of its requirements are, however, practically

impossible of performance, and no doubt there will be presented to your honorable committee such suggestions upon which to predicate amendments thereof in order to secure full and equal justice to all sought to be affected thereby.

I respectfully submit that all reference to vegetable and flower seeds and bulbs should be entirely eliminated.

So far as it applies to grass, clover, or field seeds the percentage of purity required by the provisions of the bill make it in most cases practically impossible of compliance with.

There is no such thing as a natural 98 per cent purity of any thing or kind that comes forth out of the earth. "Tares and wheat together grow," and it would require the use of a microscope to produce mechanically any such percentage of pure seed as required by the bill, even in cases where it is possible to arrive at such percentage. The process needed to produce such a percentage of purity would make cost thereof prohibitive in a majority of cases.

The bill in its present shape fails to discriminate between the willful and the accidental violator of the law. Seedsmen handle over 5,000 varieties of seed from all parts of the earth, and a reasonable percentage of accidents will occur in that, as in every other industry, in spite of all honest intent, purposes, and effort. Yet without qualification and discrimination the proposed bill makes the accidental or unintentional violator of the law a criminal and liable to heavy penalty.

A careful consideration of this branch of the proposed bill will, I am convinced, persuade your honorable committee to amend the proposed bill in that regard.

As to percentage of germination: Seeds can not be judged by their appearance; they are not a manufactured product and not made to order, and the seedsman must depend upon the fruits of the earth bringing forth seeds of its own kind. Weather conditions and the soil and the nature thereof are all important factors. Take cabbage, for example. It requires two years to produce seed from seed, and should the season prove unfavorable, the seed produced would probably be weak, of a low germinating power, but the product might represent the finest strain and the purest type of cabbage, quality as against quantity. This condition could not be foreseen when the seed was first sown, and man had really nothing to do with the result. Yet selling this seed of low germinating power would yield to the farmer 60 per cent or 65 per cent of a higher class, and consequently a higher-priced seed than another and inferior strain which would yield 90 per cent or 95 per cent. What is lost in quantity is more than counterbalanced by quality and resultant value.

And the foregoing is equally true of everything else of the vegetable kingdom.

Much stress is laid in the proposed bill on the subject of grass seed and clover. It takes 30 to 40 days for a complete test of germination. Grass seed gets mixed in spite of anything and everything you can do. Kentucky blue grass and Canada blue grass may spring up and grow together, and are almost inseparable. Few can tell from an examination of the seed which is Kentucky and which Canada. Only a scientific test or a season's growth will demonstrate what proportion of each there may be. Consider for a moment what this would mean and how it would increase the cost of the seed. Clearly, the grower might better have a mixed crop, which he could dispose of at a profit, than to have an absolutely pure 98 per cent seed at the cost of purity, if it were practicable to get that degree of purity. I say, confidently, such percentage of purity is well nigh impossible. This is equally true of clover. Your honorable committee will give due heed to and will weigh carefully all the facts that will be presented to it, in so far as they are entitled to consideration.

Bear in mind also that the seedsman is not the greatest sinner above all other sinners. The majority are honest and reputable men. This statement will apply to the farmer as well. If it is a possible thing to postpone final action on the bill, I am sure "out of the season of seedsmen" much helpful information could be furnished your honorable committee upon which a true bill could be found, and would accomplish all that is desired by the proposed legislation.

Yours, very respectfully,

President of J. M. Thorburn & Co., 33 Barclay street,
New York City, and President of Wholesale Seedsmen's League.

Mr. MANN. Will Thorburn & Co. say that they ~~can~~ not produce seeds 98 per cent pure?

Mr. WOOD. Mr. Bruggerhof has been in the business for fifty years. He is regarded as almost the dean of the seed trade, and we all look up to him and respect him very highly, and regard his statements as of the greatest weight.

Mr. MANN. Do you indorse the statement that Thorburn & Co. can produce no seed 98 per cent pure?

Mr. WOOD. Do you mean that they can not clean them up to 98 per cent?

Mr. MANN. I mean what he says in that letter, that it is not possible to have seed 98 per cent pure.

Mr. WOOD. What kind of seeds?

Mr. MANN. He did not say what kind of seeds; he said "seeds."

Mr. WOOD. They can not do it until after they are cleaned. They can probably clean them up to 98 per cent purity.

Mr. MANN. Do you indorse the statement that because nature produces seeds not pure, therefore there is to be no such thing as having seeds guaranteed to be pure?

Mr. WOOD. I do not understand the question.

Mr. MANN. The letter says that because nature produces seed, therefore it is not a manufactured product, and therefore there should be no guaranty as to the purity of the seed beyond what nature provides. Do you indorse that statement?

Mr. WOOD. I do not understand.

Mr. MANN. Do you indorse the statement that there shall be no purity of seed beyond what nature produces?

Mr. WOOD. Certainly there ought not to be any requirement beyond what nature produces.

Mr. MANN. Very well; I have some samples here of red clover seed at \$10 per 100 pounds; germination 18 per cent. Nature produced it. You indorse the doctrine that a man can indorse that as red clover seed?

Mr. WOOD. Not without considering something in regard to germination.

Mr. MANN. Then you want to take back something of what you said about nature producing it, and therefore there should be no further requirement. Nature produced that. Every one of these seeds were produced by nature [indicating samples]. You can not manufacture red clover seed, so far as I know. I know they manufacture butter, but I confess I have never heard that they manufacture clover seed or alfalfa seed. Here is a sample of alfalfa seed produced by nature.

Mr. WOOD. Yes.

Mr. MANN. That is quoted at \$6 a hundred pounds. Do you think that men should be permitted to sell that as alfalfa seed?

Mr. WOOD. What is the germination?

Mr. MANN. The germination is not marked on there.

Mr. WOOD. You say imported alfalfa seed at \$6 a hundred pounds?

Mr. MANN. Yes.

Mr. WOOD. But you do not say anything about the quality.

Mr. MANN. What do you think about the quality? That is produced by nature. On the statement I make, do you think anybody should be allowed to sell it as alfalfa seed?

Mr. WOOD. If it is good alfalfa seed.

Mr. MANN. Then you think alfalfa seed imported at \$6 a hundred pounds can properly be sold as alfalfa seed?

Mr. WOOD. I have seen alfalfa seed at a very low price. Six dollars a hundred pounds now would be a very low price.

Mr. MANN. I just wanted your judgment of it.

Mr. RICHARDSON. What is the price of alfalfa seed?

Mr. WOOD. About \$10 a bushel. I have seen it as low as \$6 or \$7.

Mr. MANN. That is the price of alfalfa seed pure, as produced by nature, but not the price of this kind of alfalfa seed, although it is also produced by nature. In other words, I want to call your attention to the absurdity of the statement constantly reiterated by the seedsmen that because a thing is produced by nature, therefore they can be allowed to sell it for anything they please. It is ridiculous.

Mr. WOOD. The seedsmen improve and bring up the quality of these seeds. They take them and clean them up and take out the weed seeds and get them up to a higher grade.

Mr. MANN. Then they change the way nature produces them.

Mr. WOOD. But, Mr. Mann, you would not have the farmer go and simply cut the heads off the plants and sell them that way?

Mr. MANN. I would not say that because nature produces a thing, therefore it is correct. We do not permit a man to sell milk simply because he draws it from a cow's teat. It is no defense against a prosecution for selling milk which is under the standard that a man has milked it from a cow. Plenty of cows will not give milk up to standard.

Mr. WOOD. Yes. The main idea of this is, of course, that the natural conditions ought to be considered through this pure-seed law. In the pure-food law you have a manufactured product, and you can make it almost anything you like; but in the pure-seed law you frequently can not do it.

Mr. MANN. You can not change the quality of peaches when you can them.

Mr. WOOD. You can change the quality by canning them.

Mr. MANN. You can change the quality of peaches by canning them?

Mr. WOOD. In the processes or methods which you use.

Mr. MANN. You assume that if a man uses a bad process and gets bad results, he can change his process; but you can make a great many more changes in cleaning seeds than in canning peaches.

Mr. WOOD. You can not, unless you put them through some process of heating or sweating them.

Mr. MANN. Your statement is that you sell seeds the way that nature produces them. If you took them as nature produces them, there could be no possible complaint, but you do not do that. No seedsman does it. It is from the necessities of the case. You can not afford to do differently. I am not criticising the way you do business.

Mr. WOOD. Yes. I also wanted to call your attention to section 6. It seems to me that this clause ought to be more definitely stated, and that seeds imported into this country ought to be inspected at the port of entry, and if they are apparently adulterated or of inferior quality or contain injurious seeds, then a bond ought to be required; but I think they should be passed upon at the time, and I think the bill should provide that. Another thing, I think the bill should pro-

vide that reports should be made to the seedsman within a reasonable time in case they are of inferior quality, so that the seedsman will know whether he is safe in selling those seeds beyond that time or not. I do not think it is the intent of the bill to require a bond on all seeds brought into the country, but under a strict construction of the law I believe some Secretaries of the Treasury might rule that they had no right to release seeds under this law until they were passed upon by the Secretary of Agriculture.

Mr. MANN. The pure-food law and the laws that were enacted before the pure-food law are on identically the same lines. If you have a lawyer who has made that assumption it is a lawyer who has not studied the law.

Mr. WOOD. I think they might look at seeds in a different way; that they could not tell without a critical or careful examination.

Mr. MANN. But the Treasury has not any such authority.

Mr. WOOD. It seemed to me that that law might be applied in that way, and it looked to us as though it ought to be more definitely stated in that respect.

Mr. HUBBARD. What would be a reasonable time after the examination within which to give notice to the importer?

Mr. WOOD. Very often in the height of the season we cable over for certain seeds. We want them to supply our customers. For instance, we need some crimson clover, which we sell very largely, and if we have to wait even ten days or two weeks for a report on those seeds it means that we are keeping the customers out of sowing seeds and we are throwing them late, and it is likely to work a hardship if the seeds are held up; and there certainly should be a provision for prompt reports on the seeds held up or that might be deemed injurious.

Mr. MANN. Of course you have given no consideration to this subject except in the dissection of the bill?

Mr. WOOD. I have tried to.

Mr. MANN. Except in the dissection of the bill?

Mr. WOOD. Yes.

Mr. MANN. You are not acquainted with the custom of the Treasury Department in reference to similar provisions as to other things. What would be the effect of that suggestion? Under this bill no seed would be held except where the Secretary of Agriculture asked it to be held. Of course he might require that every entry be held up pending his inspection, but that would be very unreasonable. Supposing you put in a provision requiring him to decide, in case he does hold up something that he thinks is suspicious, within a certain time. Suppose the Secretary of Agriculture is led to believe that here are some seeds that ought to be examined, and he holds them up, and you require him to decide it within a certain length of time. It is the seedsman that wants to be heard. The delay will not come from the Secretary of Agriculture; the delay will come from the seedsman. Within a certain length of time the Secretary has got to decide it. What will he decide? Invariably he will decide that the seed goes back. Being required to decide it, he decides it in favor of the Government and adversely to the seedsman.

Mr. WOOD. Will the inspectors make examination of these seeds immediately after they come into the port of New York?

Mr. MANN. Certainly.

Mr. WOOD. They would pass upon them right then and there?

Mr. MANN. Most of the seeds would be passed upon by looking at them, and the examination there. On seed that was doubtful and of suspicious importation they might require more time.

Mr. WOOD. Why could not the law state that specifically, rather than leave it in the indefinite way it is? Why should not the law state that the seeds should be passed upon by the inspector, and seeds that he has occasion to suspect will be held for further examination?

Mr. MANN. The law practically states that. You want to take up just one detail that occurs to you. Other details would occur to different people.

Mr. WOOD. Section 6 provides:

That the Secretary of the Treasury may deliver to the consignee such seed or bulbs, pending examination and decision in the matter.

The Secretary of the Treasury may say: "I will not take any responsibility in the matter, but I will require the Secretary of Agriculture to pass upon all these seeds before he delivers them."

Mr. MANN. That is not the case at all. That is pending examination and decision, and that question can only arise where the Secretary of Agriculture would ask for a sample of the seeds, and the matter has not yet been decided. That is a perfectly well-defined construction. There is no possible question as to what it means.

Mr. WOOD. As I understand, the Secretary of Agriculture is expected to try samples, or has the right to, from all importations.

Mr. MANN. He has a right to.

Mr. WOOD. This does not require him to do that?

Mr. MANN. Certainly not. The law throws no burden upon him of examining samples of all foods, drinks, or liquors. There is no pretense or expectation that it would be done at all.

Mr. WOOD. A good many who have read this have taken it up on that particular thing. I think I asked Mr. Brown if he would not, under this law, have to draw samples of all seeds. Is not that your understanding of this law?

Mr. MANN. If he thought that, after having read the section, he is not familiar with the construction placed on this language by the Department probably. When this section was originally put in the Agricultural appropriation bill as to foods and liquors, it was in the Agricultural appropriation bill for a number of years, and when the pure-food bill was passed through the committee I took the matter up with the Agricultural Department and with the Treasury Department, and the Treasury Department officials made an exhaustive examination of the subject and practically this same provision applied to foods and drugs, which are far more varied than seeds, was put into the pure food and drugs act, and it works without any friction to speak of.

Mr. HUBBARD. It is plain, is it not, that the Secretary of the Treasury would only act when requested by the Secretary of Agriculture? It is perfectly plain, is it not?

Mr. MANN. That is what it says, and that is the construction that has been put upon it.

Mr. WOOD. I did not understand it that way.

Mr. HUBBARD. Read the first two lines of the section.

Mr. WOOD. It reads:

That the Secretary of the Treasury shall deliver to the Secretary of Agriculture, upon his request, from time to time.

Mr. HUBBARD. He would not do anything until he was requested, would he?

Mr. WOOD. No; but they have been drawing samples of all grass and clover seeds imported into the country, lately, and now you are intending it to apply to flower and vegetable seeds.

Mr. MANN. They have been taking samples of certain seeds that have been imported into this country because of the rottenness that has been growing up in the trade. I do not know whether any of you participated in it, but you knew all about it.

Mr. WOOD. We certainly did not.

Mr. MANN. An absolutely rotten condition in the trade.

Mr. WOOD. That is a very small percentage of the trade.

Mr. MANN. I am not finding fault with the trade, you understand—with the gentlemen here.

Mr. TOWNSEND. Right there is a point I am interested in. What percentage of the trade; can you tell anything about that?

Mr. WOOD. I can not; but I am quite sure it is a very small percentage of the trade.

Mr. HUBBARD. Do you mean what percentage of the dealers or what percentage of the goods handled?

Mr. TOWNSEND. What percentage of the goods handled. What I am getting at is whether there is a demand for this legislation.

Mr. MANN. There is not from the seed houses.

Mr. VAUGHAN. I deny that.

Mr. TOWNSEND. I assume that a reputable seed house would be demanding decency in the handling of seeds.

Mr. WOOD. Yes, sir; and we would like very much indeed to have you have a practical seed law. We will help you to frame a good seed law that will prevent this adulteration and dishonesty that has existed in a very small portion of the trade. I believe that the seed trade as a whole stands as high as any class in the community. You will find rascals in every class and in every trade, and I believe that the seed trade ranks as high as any class in the country. It is simply to correct those abuses, as I understand, that you want to pass this law, and I will tell you right now that the legitimate seedsmen are with you, heart and soul, to make a practicable law. We will help you any time.

Mr. TOWNSEND. How long could a house endure that was sending out seed that was not up to the label or trade-mark?

Mr. WOOD. That is a very hard question to answer. Mr. Green has testified that seedsmen get about three-fourths of their trade from old customers who order from us year after year. Any seed house that was built up on making its trade all the time from new customers would soon come to grief. The expense of getting new trade is too much to sustain a house under ordinary circumstances. And another thing, its reputation soon spreads, and it generally becomes known that that house is not reputable or reliable, and people fight shy of it.

Mr. TOWNSEND. Does most of the trouble from adulterated seeds or seeds that are not up to standard arise out of the foreign trade or out of the domestic trade?

Mr. WOOD. I think most of it arises out of the foreign importations. I will tell you there has been a good deal of trouble the last few years with Kentucky blue grass and red clover, due to the short crops in this country and the abnormally high prices which have prevailed for the seeds. That, of course, has proved a great temptation to unscrupulous dealers to adulterate these seeds, because the margin of profit was very large. The indications are at the present time, the best indications, for as good a crop of clover as we have ever had. If we get a good crop of clover, this country will export probably as high as 10,000 bags of clover to Europe and other countries. You will hear nothing of the importation of the low-grade clover from Europe. The same thing applies with Kentucky blue grass. The condition in the last few years has been abnormal in regard to those grasses.

Mr. MANN. You say they can not afford to bring it here. For how long a time past has that condition prevailed?

Mr. WHITE. The last three or four years it has been very high.

Mr. MANN. For how long a time past could they not afford to bring it here?

Mr. WOOD. Six or seven years ago, I think, the price was very low, and I do not think—

Mr. MANN. They could afford to bring it here during the past six or seven years?

Mr. WOOD. During the past two or three years before that.

Mr. MANN. Was the price low before that?

Mr. WOOD. I say there was a great abuse existing during the last two or three years in that seed. I want to say another thing, that the people to-day are demanding higher grade seeds than they ever did. Ask any large dealer in field seeds and he will tell you that we have trouble in disposing of low-grade seeds. The time used to be when the farmers would buy second grade or prime or fair, as they were classed on the market, at a little lower price than the highest grade seeds. There was a relatively small demand for the highest grade seeds. To-day the demand is largest for the highest grade seeds, and the cheapest grades can not be sold except at considerable reductions. They are hard to sell at any price. That is because people who handle the seeds pay more attention to the highest grade seeds, and the public sentiment is getting around to-day to demand those seeds.

Mr. MANN. That is the reason this bill is here.

Mr. WOOD. I do not know that that is the reason the bill is here, because there is a demand for high-grade seeds. I believe that people are becoming educated. I have had people come around to me and want to buy cleanings for waste land. They were glad to get something cheap.

Mr. TOWNSEND. Do you come in contact with these disreputable dealers?

Mr. WOOD. We get their samples at different times, offering low prices and things in that way. I will state that we have never in all my experience, and I have been in the seed business for twenty-five years, knowingly adulterated 1 ounce of seed in our establishment.

Mr. MANN. We have collected a large number of flower and vegetable seeds, and other seeds, a great many packages in a packet, and have had very careful examinations made of those. Do you think

there would be any objection on the part of the seed houses if we published the names and the results of those investigations?

Mr. WOOD. It ought to be very carefully investigated before any publication is made.

Mr. MANN. It has been very carefully investigated.

Mr. WOOD. I know of instances which happened under the previous reports from the Department, where great injustice was done to the seedsman in question. I am not speaking particularly of this last report. Of course, there was one error made in the last report. But I tell you if you blast the reputation of an honorable, high-toned house, you perform an act that is almost——

Mr. MANN. Who blasts the reputation of the honorable, high-toned house, the man who sells seeds that will not grow or the man who discloses that fact?

Mr. WOOD. I know, but I am saying if it was done by mistake, or some other way. I know of one instance in the last report where an error was made in regard to one of the oldest and most reputable houses in this country. An order was sent to them for seeds which they did not catalogue and did not handle. They sent out and bought a small quantity of that seed to fill the order. It happened that the seed they bought contained 3 per cent of adulterants. The name of that firm was reported in that list which was sent out by the Department.

Mr. MANN. They can make their explanation of that.

Mr. WOOD. Yes; but the name was published and the list was sent broadcast throughout the land and was published in the Crop Reporter and in agricultural papers.

Mr. MANN. Do you think there would be any objection on the part of the seedsmen if we should publish a list of those seed houses from whom we purchased seeds that would not germinate at all, which had no germinating seed in any of the packets?

Mr. WOOD. I think that is a right serious thing. I do not think any reputable seed house would send out seeds of that character.

Mr. MANN. Then there should be no objection on the part of the seed houses if we publish those names.

Mr. WOOD. They ought to be very careful to investigate the thing to see if it was knowingly or willfully done.

Mr. MANN. We have no way of knowing whether it was willfully done or not, except that we buy the packages of seeds. We can not go behind that and ascertain how they were put up. Do you think it would be any injustice to publish the results of this examination which we have made?

Mr. WOOD. Not if they did it as a general thing. If it was an exceptional thing, there might be. There are instances where you might send out seeds that would germinate all right to-day, and three months from now they may lose their germination. That is a well-known thing.

Mr. HUBBARD. When these investigations are made, are the results made known to the houses furnishing the seeds before the publication is made, so that they may have an opportunity to explain?

Mr. MANN. As to this examination I am speaking of there has been no publication at all in the way of the names of houses.

Mr. HUBBARD. What publication are you speaking of?

Mr. WOOD. I am speaking of the names published by the Department of Agriculture on the Kentucky blue-grass seed.

Mr. MANN. What is the use of giving them notice?

Mr. HUBBARD. To give them an opportunity to make the explanation which Mr. Wood speaks of.

Mr. WOOD. In the last report N. J. Burr & Co. were published. That was an entire mistake, and they have had to send out letters saying that it was a mistake.

Mr. HUBBARD. Then you mean, as a matter of fact, there is no opportunity furnished these houses to explain or deny?

Mr. WOOD. We never had any occasion to be reported, and none of our seeds have ever been found fault with. I would like Mr. Brown to answer that, whether they have an opportunity to explain.

Mr. BROWN. We have not had in these later reports.

Mr. HUBBARD. Did they have before?

Mr. BROWN. They did have, in reference to the first one, I believe.

Mr. MANN. The Department, at my request, undertook to collect, and did collect, a large number of samples of flower and garden vegetable seeds which you people say ought not to be included in this bill, and I think the result of the tests made would surprise a good many of you if we would make public the names. We have not yet done that, because we desire to do no injustice to the seed trade.

Mr. WOOD. As I understand it, these samples were collected very largely from grocery stores and from boxes sold through the country; is not that a fact?

Mr. MANN. They were collected in different ways.

Mr. WOOD. If a merchant buys these seeds, he may hold them over to sell another year. We ourselves put the date on the package, but that is not the case with most of the seedsmen, and a merchant might hold seeds in his store for two or three years and then sell them in those packages, and in that way of course you might do a seedsman serious injustice if you reported him. I will tell you another thing. In the city of Richmond there are some 5 and 10 cent stores. They have had large quantities of flower seed exposed, 10 packages for 5 cents. Some of those had, I think, only a half dozen seeds in them of sweet peas, or something of that kind. Those packages have very highly colored packets, and the name of the party who got them up is not on the back at all. When people go in and buy 10 packages of flower seed for 5 cents, they know, or ought to know, that they can not expect any thing extra in regard to either quantity or quality.

Mr. MANN. Everybody is not as well posted about seeds as you are.

Mr. WOOD. Everybody knows, when they buy anything very cheap, they certainly do not expect to get anything extra. That is universally known. It is human everywhere.

Mr. MANN. You would not say that a while ago when I showed you some \$6 clover seed.

Mr. WOOD. I beg your pardon; I did say something about it.

Mr. MANN. No.

Mr. WOOD. Suppose you read over what I said about it.

Mr. MANN. The record will show what I say now.

Mr. WOOD. Anyone who buys \$6 alfalfa seed when it is selling at \$15 must know that there is something very peculiar about it that makes it sell at that low price. The price itself would be an intimation of low quality.

Mr. TOWNSEND. Has anybody had anything to say as to some of the provisions of this bill—page 4 of the bill, the first paragraph under section 4?

Mr. WOOD. That reads:

First. When one kind or distinguishable named variety of seed or bulbs shall be offered for sale under the name of another kind or distinguishable named variety of seed or bulbs.

Mr. TOWNSEND. Yes.

Mr. WOOD. I do not think there has been anything special brought out about that.

Mr. MANN. They have proposed an amendment to that.

Mr. WOOD. I would like someone to read the amendment.

Mr. TOWNSEND. If it is in the record I will not ask you to stop on my account.

Mr. WOOD. That point is a serious point.

Mr. TOWNSEND. It struck me that way. There are two or three matters here I do not understand. My attention has been called to it lately. I do not think any member of the committee wants to pass a law that will make criminals out of men who have no intention of committing an offense.

Mr. WOOD. That is the point.

Mr. TOWNSEND. Or, what is more, to make criminals out of them for doing things they can not help doing sometimes; and from the natural interpretation of that as it has been presented to me, it would seem to me as though that would mean that you must know for sure whether you are selling one variety of red clover seed for another variety of red clover seed.

Mr. WOOD. It is not in our power to know that in regard to Mammoth clover, for instance.

Mr. MANN. Then you ought not to sell it for Monmouth clover if you do not know it.

Mr. WOOD. We publish in our catalogue that owing to the similarity of these seed we do not give any warranty about them.

Mr. MANN. But you do not give any warranty about any seed.

Mr. WOOD. We use every precaution to provide these seed from the districts where they were grown, but we do not give a guaranty.

Mr. TOWNSEND. Is it possible for a wholesale dealer in seeds to know positively what seed he buys? If he looks at it and it looks like clover seed at all, is there any way for him to protect himself, except not to buy any clover seed?

Mr. WOOD. No, sir. The seeds are brought in by the farmers in the growing districts to the local dealers, as a rule.

Mr. MANN. Is there a guaranty in this bill that enables him to protect himself absolutely from that?

Mr. WOOD. But the seeds have got to be cleaned. Having a guaranty—

Mr. MANN. You could take a guaranty from the farmer absolutely protecting you. Now, who ought to take the guaranty, the seedsman or the purchaser who knows nothing about it?

Mr. WOOD. The farmer as a rule has confidence in the seedsman, that the seedsman is going to use all reasonable care to supply the seeds as he sells them. We procure the Mammoth clover from the growing districts so as to reduce as much as possible any chance of manipulation. We use all reasonable care, but we could not and

would not give any guaranty in regard to the Mammoth clover. I have handled that seed now for twenty years, and I do not remember a single complaint from one customer that the seed did not turn out Mammoth. We would have been perfectly safe, as a matter of fact, in giving a guaranty; and yet we might strike a season where the farmer might represent, on account of higher price, another clover as Mammoth clover, and might put us into a serious predicament. In this matter I know that there has happened some considerable trouble in that respect. When Mammoth clover, as it frequently does, sells at a higher price, some parties represent other seed as Mammoth, and it is sold in that way. That happens in some instances. I do not believe it is practicable for a seedsman to warrant seeds. He can not follow the seeds from the time they are grown and saved until they are delivered to the customers.

Another thing, you may grow crops of melons, and they may become mixed or hybridized with other melons, and while you can save the seed out of true melons, they may and will bring hybrids and sports, and it is an impossibility to guarantee things to come true in that way where there is a chance of mixing. Corn will mix in that way a quarter or half a mile across a field, from one farmer's corn field to another, sometimes, and there is nothing to show until the second crop is planted.

Mr. MANN. Is there anything else?

Mr. WOOD. No; I do not think so. I thank you very much.

STATEMENT OF MR. WALTER P. STOKES, OF PHILADELPHIA, PA.

Mr. STOKES. Mr. Chairman and gentlemen, I was to take up the vegetable-seed department of this bill. I do not pretend to be a grass-seed dealer, although I sell them at retail, but my business is almost exclusively in vegetable seeds, and I think there are very good reasons why all mention of vegetable and flower seeds and bulbs should be omitted from this bill entirely. There are so many contingencies that apply to vegetable seeds that do not apply to grass and field seeds, which we have been discussing here to-day. In the first place, you can not distinguish in vegetable seeds one variety from another. You can tell white clover from crimson and red clover, but you can not tell one variety of radish seed from another variety of radish seed, and you can not tell cauliflower seed from cabbage seed, and there are some varieties of turnip seed that look almost exactly like it. There are only a few seeds of beans, a few seeds of peas, and perhaps a few of sugar corn, in which one variety of peas or beans or sugar corn can be told from another variety. But in nearly all the rest of the flower and vegetable seeds the varieties that we list in our catalogues can not be told one from the other; so that I think the endeavor to bring the vegetable-seed department under this bill would be a mistake. I have been working along these lines for a great many years, and I have never known a case where a man bought turnip seed and found there was cauliflower in his package.

Mr. MANN. And I guess you never will.

Mr. STOKES. Or where he bought cauliflower seed and found turnip seed in his packet.

Mr. MANN. I have.

Mr. STOKES. You have found turnip seed in cauliflower packets?

Mr. MANN. Yes; I have.

Mr. STOKES. I never have found it in my experience in twenty-five years, although such accidents may occur. I had one to happen only last spring and I am perfectly willing to relate it, simply to show how a seedsman who wants to do what is right by his customer does do. I had a very valuable customer, a truck farmer, who buys liberally of me and for ten years has been a good customer. He came in to me one day last spring and held up a little plant and asked me what that was. I told him that it looked a little like kale, and he said, "I bought it of you for cabbage. He bought a quarter of a pound of cabbage seed, and in some unimaginable manner he had gotten the wrong seed. He sowed his ten or fifteen or twenty sash in what was supposed to be cabbage seed and it came up kale. I could not explain it any more than why one tree is struck by lightning instead of another. I ask him how many thousand plants he thought he ought to raise in those sash, and he said he thought about 25,000, and I said, "I will supply you with 25,000 cabbage plants." I think that nine-tenths of the reputable seed houses would have done the same. That man would not listen to my giving him 25,000 cabbage plants. He said, "No, sir; you give me 5,000 and I will be entirely satisfied." And there is not a seedsman in this room who can take away that customer from me to-day. I believe that is the attitude of the seedsmen toward their customers, and it is that spirit that will, I believe, take care of the vegetable-seed trade. We have been doing it along these lines for a good many years and, I believe, will continue to do it, and I believe there is a stronger feeling in the seedsmen's minds to-day to furnish good stuff and take care of their customers than at any time in the history of the trade. They have got to do it. The good houses are doing it, and the others have to do it to keep up with the procession.

In the matter of the germination of vegetable seeds, that is a question that requires expert knowledge of the business. In the year 1906 the crop of cabbage seed on Long Island was a very bad one. Weather conditions at the time cabbage was maturing were such that the cabbage seed did not properly mature. The best sample you could get of Long Island grown cabbage seed would not give over 60 to 65 per cent of germination. You could buy imported seeds, perhaps, that same year that would have given 98 per cent germination; yet to the practical planter the 65 per cent germination of cabbage seed grown on Long Island was worth ten times the 98 per cent English cabbage seed that would be imported. So you can not establish, one year for another, what the germination test should be for a fine grade of seed. This past year the same thing occurred in eggplant seed. You could not get a good sample. It did not mature; it was not to be had.

Mr. TOWNSEND. I suppose the treatment of seed after you sell it has something to do with the germination, also?

Mr. STOKES. Yes; a great deal. Occasionally, where a seed has not properly matured it is light in weight, and with a strong blast on a fan you can blow some of it out.

Mr. TOWNSEND. I am referring to seed that was all right, and which might have been 90 per cent when you sold it. Would the treatment after you sold it, and before it was actually sown, have anything to do with the germination of it?

Mr. STOKES. Not very much. Of course, too much heat or cold might affect it, but not under ordinary circumstances. Age would decrease its value, of course. But many seeds are quite curious in respect to age. Cucumber seed five years old will give you more fruit than seed that is harvested fresh that year. That is simply because there is such a tremendous impetus to grow to vine with the new seed.

Mr. TOWNSEND. I thought the moon had something to do with that.

Mr. STOKES. It does, in some people's minds. Another thing. Take the seed of Grand Rapids lettuce. Seed that is harvested in September or October, giving you a poor germination in November and December; yet that same seed sown in March will grow well, showing good germination. It seems as though it requires a certain length of time to ripen after it is harvested. So any arbitrary germination test that you may make would not apply, practically. Did you ever have any experience of that kind, Mr. Mann?

Mr. MANN. Yes, lots of stuff does not ripen; the pods do not ripen. But that is no excuse for selling Grand Rapids lettuce in November that will not grow, for planting in November, is it?

Mr. STOKES. Yes; you might put up seed that was harvested in September, and that is perfectly fresh seed—the best seed you can get—and it might give a poor germination in November, and yet by January or February it would be all right.

Mr. MANN. A man who buys seed to plant buys them because he expects them to grow. It is very little satisfaction to a man to have them so that they would grow a year afterwards.

Mr. STOKES. I just instanced that case as one of the difficult cases that come up to the seedsman, and that are liable to happen sometimes when he is doing the very best he can. And I say there should be no penalty in a case of that kind.

Mr. MANN. There is no penalty as to that, although I am not so sure but there ought to be.

Mr. STOKES. Then we will have to change the laws of nature in some way.

Mr. MANN. Not at all.

Mr. STOKES. In order to make this thing proper for seedsmen?

Mr. MANN. There would not be the slightest trouble in getting Grand Rapids lettuce to grow in November.

Mr. STOKES. You could carry them over from the year before, perhaps.

Mr. MANN. Not the slightest difficulty.

Mr. STOKES. Then you would run the risk of its deteriorating in the other direction.

Mr. MANN. No; you do not run any risk at all, if it is Grand Rapids lettuce seed that has been taken care of.

Mr. STOKES. Another matter in regard to a question that was asked of Mr. Wood, in regard to publishing the names of those from whom seeds of poor germination had been purchased. I think that the Department should be careful to see that those samples which it takes are purchased direct from the houses themselves, and are not picked up from boxes around here and there in the country.

Mr. MANN. Is it any satisfaction to the man who buys the seed from one of these houses in the country to know that—

Mr. STOKES. You want to buy from the reliable houses, and not pick up your seeds in corner grocery shops. I do not think it is fair

for the Department to go around to the corner grocery shops and pick up seeds for these tests.

Mr. MANN. If you send the seeds around to the corner grocery shops to be sold, if a man complains that buys seeds at that place when he buys seeds that will not grow——

Mr. STOKES. He should complain to the grocer, and not fall back on the seedsman.

Mr. MANN. What good does it do to complain to the grocer unless there is some law on the subject?

Mr. STOKES. The grocer then should be compelled to buy fresh seeds every year from the seedsman. I do not wish to take up any further time on this subject.

Mr. GREEN. I would like to introduce Mr. Jerome B. Rice, of the firm of Jerome B. Rice & Co., of Cambridge, N. Y.

STATEMENT OF MR. JEROME B. RICE.

Mr. RICE. I do not know that I can add anything to the talk that is being carried on here to-day. I am a grower of peas and beans and garden seeds generally, growing peas and beans largely, in the States of Wisconsin and Michigan, and I have built up a large business from a small beginning, and have tried to do business on sensible lines and produce as good seed as I was able to, realizing that if I did otherwise I could not supply the trade to their satisfaction and could not hold the trade. I am more directly interested in peas and beans than I am in garden seeds generally, and know more about those crops. As a rule, we have but little trouble about the vitality of our seeds or about the maturity of our seeds. I think, perhaps, less so than we do with other kinds of the so-called garden seeds.

Mr. MANN. You make a special effort, I suppose, to raise seeds true to varieties and names?

Mr. RICE. Yes, sir.

Mr. MANN. Do you have any difficulty in doing that?

Mr. RICE. Yes; we have difficulty.

Mr. MANN. Do you overcome that difficulty?

Mr. RICE. We do the best we can toward it. We come pretty near overcoming it, so that the product is satisfactory to the planters.

Mr. MANN. You are able to overcome the difficulties in raising true varieties of peas and beans to the extent that you can furnish practically seeds true to the varieties and the conditions?

Mr. RICE. Yes.

Mr. TOWNSEND. Have you read this bill?

Mr. RICE. Not entirely. I have not given that bill careful consideration and reading, as much so as I should have done.

Mr. TOWNSEND. Do you know any part of it that you can tell how it is going to affect you?

Mr. RICE. I do not know. I suppose, perhaps, on the general lines, in a general way, it would affect me the same as it would the rest of the seed trade, because while I am not a grower of all kinds of seeds I am dealing in almost all kinds of garden seeds. I do not deal in field seeds—in timothy and clover—to any extent, except in a very limited, small way.

Mr. TOWNSEND. Do you have any trouble with your varieties of peas, for instance?

Mr. RICE. We do have, and would have more if we did not watch out carefully and look out for the stocks and keep out the rogues and sports, as we call them. It is an easy matter for a stock to deteriorate and run wild.

Mr. TOWNSEND. Can you tell the different varieties by the seeds?

Mr. RICE. Not always. Some varieties are quite similar to others by sight.

Mr. TOWNSEND. What other means have you for keeping vegetable varieties true?

Mr. RICE. In the growing of them; in the summer time, in the growing of the seeds. Take, for example, a great many varieties of the peas, and they are quite similar one variety to another; but while you could not designate one sort from another, yet you could do it if you should see the two crops growing, because they grow differently and they have different foliage and different height of vines.

Mr. TOWNSEND. You do not grow any seeds, do you?

Mr. RICE. They are grown by our farmers.

Mr. TOWNSEND. The pea seed?

Mr. RICE. All the pea and bean seed.

Mr. TOWNSEND. You do not buy from the farmers generally?

Mr. RICE. We do not pick up anything. All our seeds are grown from pea stocks grown by ourselves, and in that way we know generally what sort of stock we put out, what sort of seed we plant with the farmers. We make contracts with farmers for 5, 10, or 15 acres of a certain variety of seeds, and when that is at the proper stage to examine we examine it, and if there is anything in there that ought not to be we go carefully over that field, and a man in charge of four or five men goes over it, pulling out all the rogues and sports that appear in the field, and in that way we keep them down. If anything gets left in, it is taken out when we handle it. The seed as it comes from the farmer is hand picked, and if there is anything that does not look right it is taken out at that time. By these two ways we keep our stocks of peas right.

Mr. TOWNSEND. What I was trying to get at is this: I take it that some of the dealers in seeds buy seeds of the farmers to whom they do not furnish seeds. How could you tell then, as a seedsman, whether you were buying a certain variety of seeds or not?

Mr. RICE. So far as we are concerned, we do not get our stock that way, buying promiscuously from farmers. We would not buy a field of peas, for instance, that we did not supply the seed of, to plant, or did not see the stock growing. Alaska peas, for instance, might look in the sample to be extremely fine in quality and purity, and you could not tell whether they were pure or true or not. It would not be a safe proposition to buy peas that way, unless you wanted to get yourself into trouble and pay a damage bill.

Mr. TOWNSEND. Do you have to pay damages if you sell goods that are not true to variety?

Mr. RICE. We oftentimes have done such things. If we should get hold of any such thing through mismanagement or in any way, a customer would oftentimes want to make you do something that was right, for instance, if he lost a crop.

Mr. TOWNSEND. You say that is a frequent occurrence?

Mr. RICE. No, sir.

Mr. TOWNSEND. I thought you said "We frequently have to do this." I did not know what you meant by that.

Mr. RICE. Sometimes a farmer loses a crop, and sometimes he gets into trouble when we think it is not always the fault of the seed.

Mr. MANN. You do it whenever it is necessary to keep your reputation for selling seeds true to name, I suppose?

Mr. RICE. Yes, sir.

Mr. GREEN. I will call next on Mr. Alexander Forbes, of the house of Peter Henderson & Co., of New York City.

STATEMENT OF MR. ALEXANDER FORBES, OF PETER HENDERSON & CO., NEW YORK CITY.

Mr. FORBES. Since I have been listening to this discussion I have been led to think that if we keep in mind the seeds that are definitely distinguishable in the grain, much good work could be done, but on seeds that are not definitely distinguishable in the grain I do not think we can do much, except from the standpoint of germination. The clovers and grasses are distinguishable in the grain—that is, most of them are—and certain of the forage plants; but, as Mr. Stokes has remarked, the varieties composing the families of vegetable seeds really can not be distinguished one from another, except the bean family, a few varieties of peas, and a few varieties of corn; and I do not see that you can help matters by having a law to say that you shall warrant or guarantee the purity of any seeds sold, except in seeds that you can distinguish in the sample. I think if that is kept in mind it would eliminate a great deal of futile effort that is attempted in this bill. I do not think that you can do anything with seeds like cabbage, turnip, or cauliflower, that you can not tell one from the other.

Mr. MANN. You think there ought to be no liability on the part of the seedsman that sells cabbage seed for cauliflower?

Mr. FORBES. It is for the lawmakers to say whether we should be made liable.

Mr. MANN. You are not liable now.

Mr. FORBES. All over the world, we seedsmen feel that we have a right to use that disclaimer. We can not buy from the first seedsmen in Europe or any other continent a package of seed, however small, and get a guarantee. You can not get any guarantee or warranty from the finest houses or the first sources of supply the world over, and it seems to me it is hardly fair to expect the American seedsman to do what the seedsman of no other land is asked to do. If it is possible to do it we are willing to try to do it, if you insist upon it; and if you say we have to do it we will try to perform it; but I think it is getting pretty near the impossible. Whenever the seed is definitely distinguishable in the grain, I think you gentlemen and scientists, and even we who are not scientists, can pretty nearly tell when a thing is true, by the form of the grass seed, or the markings on the clover, or the color of it, when it is right or wrong; but when you get beyond that, where they are not definitely distinguishable in the seed, I do not see that you can do very much more to protect the planter than we are doing now. I just put this forward as a general proposition, to try to divide this subject into two classes—the one practicable, the other impracticable.

Mr. MANN. The trouble is, we do nothing now as to the matter of imposing a legal liability.

Mr. FORBES. You see you have met with success in finding out the adulterants that are used in mixing with clovers and grasses. That is really a shameful state of affairs, and I for one am here to denounce it and say that it is a blot on the seed trade, to think that this should have gone on for two years after the warning that the seed trade has had in the circulars that have been sent out by the Department of Agriculture. In this connection I would ask to have placed on record a letter which my firm sent to the Secretary of Agriculture over two years ago (copy of letter herewith). I do not understand why anybody can afford to adulterate seed, and I think those who have done it ought to be shown up. One gentleman asked a little while ago whether we had any idea as to the number of rogues who are doing this. I have no means of knowing, but I can give a fairly good guess. I said I thought that they could be numbered on the fingers of two hands, and the party who put the question to me said that he thought they could be numbered on the fingers of one hand.

Mr. MANN. He has not read the reports. More than half of the samples of Kentucky blue grass seed examined last year were adulterated. It was not accidental, but willful adulteration with Canada blue grass seed.

Mr. FORBES. No; I distinguish between the innocent dealer who does not know red clover and alfalfa from trefoil and the man who does. You have a whole lot of people in those reports who really do not know anything about seeds. They are hardware people and men who have no business to be in the seed trade at all. They rely upon some importer to supply them with what they want, and as a rule they are looking for cheap grades.

Mr. MANN. They do not import Kentucky blue grass?

Mr. FORBES. No; but they import Canada blue grass.

Mr. MANN. They sell Canada blue-grass seed and label it Kentucky blue-grass seed.

Mr. FORBES. There are three or four items that you have made a study of, viz. red clover, alfalfa, orchard grass, Kentucky blue grass, and their adulterants.

Mr. MANN. My special study has been your line.

Mr. FORBES. What do you call my line?

Mr. MANN. Vegetable and flower seeds.

Mr. FORBES. I take an interest in the seed trade all around. I take a considerable interest in clovers and grass seeds personally, just as you might in vegetable seeds. Now, coming to vegetable seeds, I do not think it is fair to the reputable houses who are in the seed business, as distinguished from corner grocery and hardware stores who handle seeds as they do, to hold the seedsman responsible always for results. The representatives of commission houses come to their stores and leave boxes of seeds and then they will call again six months hence and make collections. Sometimes these grocery stores will keep a box of seeds over a year, and it is forgotten, and they will keep them sometimes longer than that. To give you an instance of that, I will tell you what happened this year to our house. It is ten years since we discontinued supplying the wholesale trade, and we have not knowingly furnished a dealer since that time. We supply seeds direct to the planters only, and have done it for the last ten or

eleven years. It was only this spring that a man called on us to know whether we could not furnish him some seeds to sell again. We said "no." He said, "Well, I have some of your seeds, and I do not see what is to prevent me from selling them. Will you not take them back?" I said, "When did you get these seeds, and how did you get them?" He said, "I got them when you were in the wholesale business, and I have them yet."

Mr. MANN. Do you think he ought to be permitted to sell those seeds?

Mr. FORBES. No, sir; I do not think he ought to be permitted to sell them.

Mr. MANN. But that is what, without this law, he can do.

Mr. FORBES. I do not think he ought to be permitted to sell them, and any man that would sell those seeds under the circumstances is a scamp.

Mr. MANN. But without this bill he can sell them.

Mr. FORBES. I do not think it is fair to get hold of a package of seeds, such as that man was willing to offer for sale, or a lot of seeds that had been offered for sale in commission boxes that had probably been lying around for two or three years—I say it is not right to gather a lot of samples like that and say, "These are fair samples of what the seedsmen of America are selling." That goes abroad and gets into the newspapers and we are looked upon as a set of rascals.

Mr. MANN. Then why do you not help us to eliminate the possibility of it?

Mr. FORBES. We are willing.

Mr. MANN. No; you say you want vegetable seeds taken out of this.

Mr. FORBES. What can you do along the line of vegetable seeds, except to tighten up the germination standard? We can not tell anything about the purity of it by examination of the grain. You can not help us to do that any more than we are doing.

There is another feature of this thing. The farmer is a very important factor in the production of seeds—in fact, he is the first source of supply. There is no penalty in this bill for the farmer if he should harvest seeds that are not all right or true. He may grow for seed a crop of peas or beans or corn that has not been grown with care or from selected stock seed. There are some who buy their seeds from the grower in this way; and is not the grower, the farmer, the first source of supply, and ought he not to become amenable to the law?

Then, as to the grower of grasses. A farmer sows a field that he knows is full of weeds, and he mows it and harvests with the crop the thistles and dock and all the other weeds that he has in his field; it is all threshed and put in the same sacks and offered for sale. He simply mows that and brings it all in just as it grew, wild and mixed. That farmer has the right to sell such seed with impunity to his dealer or to his neighbor, if he will buy it.

Mr. MANN. Do you object to that?

Mr. FORBES. Yes; I do.

Mr. MANN. You think that ought not to be allowed?

Mr. FORBES. I think it ought not to be allowed.

Mr. MANN. And you think we ought to have a bill forbidding that?

Mr. FORBES. If you are going to hold the seedsman, you ought not to let the farmer off scot-free. The farmer ought to be made to bear his share of the burden, just the same as the seedsman. The seedsman helps him out to the best of his ability by screening and cleaning his product and making it merchantable; but as to the farmer, there is nothing said about giving him a penalty or imprisoning him. I think the farmer ought to be made to bear his share the same as the seedsman.

Then how would this apply to the Department of Agriculture itself? They are large seed merchants, and they have made mistakes, not willfully, of course. Mr. Wm. Hy. Maule, of Philadelphia, went before the Agricultural Committee of the House to make complaint against the Department as to the "Prizetaker" onion he had introduced as a novelty at that time. It is a large, globe-shaped onion, and he went to a great deal of pains and it cost him a good deal of money to get control of that novelty. They bought it from an outside source, and it was distributed. Instead of Maule's Prizetaker it turned out to be a small, common, flat onion, something entirely different. In a case of that kind, where that onion was distributed in that way, do you not think the Department of Agriculture ought to bear its share of the penalty? Look at the damage it did to Mr. Maule (not knowingly, of course), besides deceiving thousands of the recipients of Congressional free seeds that year as to Maule's Prizetaker onion. This only goes to show that the Government experts can be deceived by a dishonest farmer just the same as any member of the seed trade.

Mr. MANN. Ought we not to be able to reach the man who committed the fraud? You want to take him out of this bill.

Mr. FORBES. I would not be at all surprised if the man who sold that to the farmer was a Chinaman out in California. You talk about those other people buying cheap seeds—the Department buys just as cheap seeds as it can get.

Mr. MANN. They ought to be required to buy good seeds.

Mr. FORBES. I think the farmer ought to bear his share, and I think the Department also, if they make a mistake, let them do as we seedsmen do, by duplicating the order or giving them assistance in some way.

Mr. TOWNSEND. If you sell me seed for cabbage, and it turns out to be cauliflower, I have a remedy against you, have I not?

Mr. FORBES. If you say you have by law, you should have; but I do not see that we should be held responsible for that when we can not have a remedy from the farmer or grower.

Mr. TOWNSEND. I mean, in dealing with a customer, do you not feel that you are under obligations to make good a loss to a customer which occurs through a mistake or otherwise?

Mr. FORBES. We have done it.

Mr. TOWNSEND. Do you usually do it?

Mr. FORBES. Yes; we usually try to settle amicably with a customer.

Mr. TOWNSEND. You have to do that to protect your business, do you not?

Mr. FORBES. That is only right. If we or any of our people have been guilty of a thing like that, we try to settle it amicably. I do not suppose there is a house represented around this table that has not had something of the kind happen to them. And yet they are not

always to blame. I will give you an instance. A complaint came in that a packet or an ounce of vegetable seed would be wrong, and we could not understand why it should happen just once in a while. They would want celery and they would get cabbage for it, or something else. We found in laying out the stationery—the envelopes, say, for celery—that by mistake the printer might allow one cabbage-seed envelope to be among the celery envelopes, and that would be filled out of the stock that was laid down to fill that kind of celery. Then it was put away in the bin, a clerk would go there and pick out that particular packet labeled cabbage but containing celery and lay it out, and if celery was called for on the order the checker would be confronted with cabbage on the envelope. The checker would say, “But this order does not call for cabbage; it calls for celery; take that away,” and the clerk who took that out would think he had gone to the wrong bin, and he would go and put it in the cabbage bin, where he thought it belonged, and yet that contained celery. The next one that came along and took that packet got cabbage, as he thought, and called it off for such, but it contained celery. There is a mistake which happened more than once with us, which has happened with others, and which makes it a pretty hard matter to have to publicly guarantee and warrant everything we sell in the seed business. I think that the officials of the Department of Agriculture will understand that pretty well.

Mr. TOWNSEND. This business is not the only one where mistakes occur, is it?

Mr. FORBES. No; I do not think it is. In all other kinds of business mistakes occur, but they are not sent to prison for them.

STATEMENT OF MR. J. C. VAUGHAN, OF CHICAGO, ILL.

Mr. VAUGHAN. Mr. Chairman and gentlemen, I am so alone in a certain view of this law, and have such a peculiar strenuous manner, which is, however, only earnestness, and not anger, that it has been thought wise on the part of my committee to keep me pretty far in the background. I am fortunate, however, in having a friend at court. The chairman of your honorable committee and the gentleman who has made probably the greatest record in the last three years in the Lower House, is my personal representative here from the Second Illinois district, my servant, so to speak, so that you can imagine what position I am really in, and how he has to submit—really, I have not told him this—to anything I may offer, and he has nothing to say.

There is another side of this question, and my colleagues feel that I am so sensitive over this view of the bill that my bitter resentment in talking here might prejudice our cause. Therefore I must ask that they be not held responsible should I overstep the bounds of propriety in my remarks.

Now, I do not need to say to Mr. Mann or to Mr. Townsend, and other members of this committee here, or perhaps I should say to them, that I feel bitterly that the honesty of my life work has been impugned in the report, and in the act itself. I feel that our industry has been selected to be hitched up with the food law to make a team; the pure-seed law sounds fitting to match with a pure-food law, but these things are not common, and should not be compared with each other. It is wrong; it is like putting two different animals to-

gether, the horse with the mule. I do not say that I am alone in this view as to the act impugning our honesty, nor that I am more honest, but I may be more thin-skinned.

My excuse for furnishing any evidence of my own standing lies in the following: We have thought that we were a benevolent people, and we have thought that we were doing good work, and it is conceded that the honorable gentlemen in the House of Representatives are truly aiming to benefit the planters of this country on similar lines. Now, we feel that the seed business lies pretty near the foundation of agriculture, and I have to-day here some letters, which I will ask Mr. Mann kindly to read, as establishing to a little extent my standing in public work and as a merchant.

Mr. MANN. I do not think that needs reading.

Mr. VAUGHAN. As I say, I want to clear up the atmosphere a little as to my standing in horticulture. The one from the director of the Missouri Botanical Garden, perhaps the most benevolent and largest educational institution in horticulture and agriculture, I would like to have you read.

Mr. Mann here read aloud the following letter:

THE MISSOURI BOTANICAL GARDEN,
OFFICE OF THE DIRECTOR,
St. Louis, Mo., April 18, 1908.

DEAR SIR: My attention has been called to the fact that Mr. J. C. Vaughan, chairman of the national council of horticulture, and a well-known horticulturist, is to appear before your committee to urge that the proposed pure-seed act (House bill 13835 of the first session of the Sixtieth Congress) be not passed in its present form.

Though it seems superfluous for me to do so, I have pleasure in saying that Mr. Vaughan is personally known to me as not only a good business man and a man of good judgment, but also a gentleman whose philanthropic work for the betterment of American floriculture entitles anything that he may say to the most careful consideration, and I trust that the arguments which he may present in regard to this bill will be accorded the full consideration that they merit. I am sure that nothing that he presents will be found inconsistent with the obvious and commendable purpose of the bill to prevent fraud in the seed and plant trade, but to show why, in its present form, the law, if passed, is likely to work injury and be attended with administrative difficulties not commensurate with the good that its enactment will secure.

With sincere respect, believe me, truly, yours,

WM. TRELEASE.

Hon. W. P. HEPBURN.

*Chairman Committee on Interstate and Foreign Commerce,
House of Representatives, Washington.*

Mr. VAUGHAN. I should like to have you read the other, also.
(Mr. Mann here read the following letter:)

THE FIRST NATIONAL BANK,
Chicago, April 18, 1908.

Hon. WILLIAM P. HEPBURN.

*Chairman Interstate and Foreign Commerce Committee,
Washington, D. C.*

DEAR SIR: Mr. J. C. Vaughan, of Vaughan's seed store, dealers in flower and garden seeds, has called our attention to the proposed legislation restricting the adulteration of grass seed, etc., introduced by Congressman James R. Mann.

Vaughan's seed store has done business with this bank for many years and their dealings have been of a highly satisfactory nature. We regard Mr. Vaughan himself as a gentleman of strict integrity and honesty and believe, as is his general reputation here, that he conducts his business in a strictly honorable manner.

Yours, respectfully,

JAS. B. FORGAN.

Mr. VAUGHAN. Of course, this may seem trifling to you, and I apologize for it in advance, but there is a little atmosphere here arising from a statement made by the chairman a little while ago, that the seed men did not want to correct the abuses, and I stood up and denied it then, and I stand here now and deny it.

Mr. MANN. I have never seen any evidence of it. I have had absolutely no assistance from the seed men in this matter, and the abuses have been going on for years, and there has been no effort to correct them. That is the fact.

Mr. VAUGHAN. I live in the Second Illinois district, and I am a seedsman known to some extent, and I will say that Congressman Mann has never consulted with me or asked me for any information, aid, or assistance.

Mr. MANN. You are mistaken about that. I was at your office several times last summer and tried to see you, and I was told that I could not see you. I also wrote to you last winter that I wanted to see you during the summer, but I was not able to do it.

Mr. VAUGHAN. I repeat, and my word is good in Chicago, that Congressman Mann, Congressman of the Second district—this is in all kindness and fairness—has never personally made known to me, either by letter or in person, that he wished to consult me in regard to this law.

Mr. MANN. You are mistaken about that.

Mr. VAUGHAN. Personally, I say it has never come to my knowledge, and my word is good.

Mr. MANN. Nobody doubts that, but we had correspondence over a year ago.

Mr. VAUGHAN. I say on this bill. I do not like to enter into a dispute, but I am loaded with the best authority as to my unselfish interest in horticulture, and I have more letters here.

Mr. MANN. It seems to me it would be just as wise to consider the bill instead of considering these matters.

Mr. VAUGHAN. I have apologized in advance for any blunders I may make owing to the sensitiveness that I feel in being classed in the Lydia Pinkham patent medicine class, and I resent it.

I am here now to try the best I know how to clear up some of the difficulties.

We are handicapped in the beginning with the word "guarantee," Mr. Townsend. It must be qualified. There is no such word as "guarantee" usable without a qualification. We do guarantee, and so does every seed man within the hearing of my voice, that if cabbage seed sold at 30 cents is not true and does not grow reasonably well, a man can get his 30 cents back. Everybody knows that if you buy a dozen eggs from the grocer and they are rotten, you get a new dozen, and that condition exists in the seed trade, and so far as errors occur in the seed trade, it is a common, everyday practice; that is, to guarantee so far that the buyer can get his money back.

Here is the ablest expert in the United States present here [referring to Professor Tracy] who is in the employ of the Department of Agriculture, and I ask him to interrupt me at any time that I make a false statement. You can see how I get to going, and you can understand why they do not want me to talk.

Mr. MANN. I think it is very evident.

Mr. VAUGHAN. That is why (because I am so resentful of the imputation against our industry) that they did not want me to talk.

Now, there are some things the seedsmen say they will not do. You come to a counter and take onion seeds and cauliflower seeds and you take those seeds away and sow them on the open ground. Is Vaughan going to follow them? They take these seeds and sow them on the ground. What kind of ground? In a poor, gravelly ground, or do they put it in, as is proper, on good garden soil? A buyer may sow lawn grass seed in August and the delicate shoots may start properly, and yet at 2 o'clock in the afternoon on a scorching day these shoots may burn to the ground and the sower find it burned and ruined on his return at night without having known or seen its growth at all. That is why we can not warrant, as to crop itself, any grass, onion, or cabbage seed sent, sown, and used all over the world. In the South, negroes sow the cucumber seeds, how well and on what soil? How can the seedsman have knowledge as to their methods? Too much fertilizer in one place blights the crop; too little in another means failure. I do not have to talk to gentlemen like you gentlemen on this committee to tell you why we can not give a crop guarantee.

Mr. Mann says there is no excuse for selling in November "Grand Rapids" lettuce seed that will not grow. I think some of my colleagues speaking before me have misunderstood this. Almost all seed will grow to a degree. The new crop of this lettuce seed will grow to an extent, but it does not do its best. Mr. Tracy can tell us just what per cent newly harvested lettuce seed will germinate in November. You can carry over seed of the previous year's crop, but that will not grow as it should; but Mr. Mann is right that you can get a reasonable percentage of growth from seed 1 year old. Mr. Stokes I understood to say that it will not grow, meaning it would not germinate a high percentage. It will show a fair percentage.

There are many seeds you have to take that are not 98 per cent pure or vital. Radish is scarce this year.

What percentage does it grow? The best of it (French stock) this year grows 50 per cent; and a gardener Mr. Mann knows well, Mr. Breyfogle, with 40,000 feet of glass, comes in and pays us two prices, because he prefers it, for 50 per cent vitality radish seed of this best type, and sometimes it may be 1-year-old seed. The testimony in former hearings here shows that a question has been made between old and fresh seed. It should not be. The distinction is between fertile and unfertile seed. I throw back at the Department the words "dead" seed. We harvest many seed crops containing unfertile seeds. God made little apples. And God made a lot of unfertile seeds that were never vitalized.

Now, as to the impossibility of distinguishing varieties, the question was asked of Mr. Rice, there, crippled from Libby prison—and if he gets the Fort Leavenworth stripes on him we will cover them up with the old flag—and he said he could distinguish most of the garden beans. When Professor Tracy, of the plant department here, was professor at the Michigan Agricultural University he knew the difficulty of distinguishing a green-pod black wax bean from a yellow-pod black wax bean. Was not that a real rogue?

Professor TRACY. In some instances it is, and in others it is simply degeneration.

Mr. VAUGHAN. You can not tell them apart very well, can you? It is a terrible mistake when a buyer comes to a seedsman for a black wax bean yellow podded and gets one producing green pods, and the seedsman has a lawsuit coming. The chairman has asked—and he will correct me if I am wrong—

Mr. MANN. No; you make your own statement and I will make no corrections. I will make my corrections in my own way.

Mr. VAUGHAN. Yes; but I am not a lawyer, and I have no lawyer with me.

Mr. MANN. It is very fortunate. We might not get the facts if you had a lawyer appearing for you. We know you will give us the facts.

Mr. VAUGHAN. Facts?

Mr. MANN. Yes.

Mr. VAUGHAN. I thank you for saying that. What point was I making?

Mr. GREEN. You were talking about black wax beans.

Mr. VAUGHAN. I was about to make a statement to Mr. Mann, and I wanted to ask him to correct me if I was wrong, but I guess I have lost it.

The point was made here, and well made, as to the volume of complaints and errors that existed in our trade, compared with the total business done. Would it not be well to compare the number of mistakes in one of our large seed houses with the number of packets put up annually in the trade with similar errors and volume of business in dry goods, hardware, and like industries? Is not that a fair basis for comparison? Mr. Rice, may I ask you to state, roughly, how many thousand packets of seeds you put out in a year?

Mr. RICE. I do not know that I could state exactly. Several millions of packets.

Mr. VAUGHAN. Ten millions, maybe?

Mr. RICE. I should think so.

Mr. VAUGHAN (to Professor Tracy). What would you suggest that Messrs. Ferry & Co. put out? Do they put out 100,000,000, Professor Tracy?

Mr. TRACY. Some seasons as many as that.

Mr. VAUGHAN. I would like to compare that 100,000,000 packets that one firm alone puts out, and the number of blunders and errors found by the Bureau of Plant Industry, with the proportion of blunders in other industries. If it is customary to print the names of people selling rotten eggs or selling things that they willfully sell wrong, knowing them to be wrong, we shall be willing to have the names of our seed-trade people published; but we would like a hearing. If that is not American fairness, then I do not know what that is. I think I have tried to cover the guarantee question.

I want to back up all that Mr. Forbes has said on adulterants in grass and clover seeds, and I want to back up the work of my Representatives in Congress in trying to do away with this abuse of adulterations. I believe they have used such in the vegetable-seed trade in some parts of Europe, but I have never seen a man or known of a case of the adulteration or use of dead seeds in the vegetable-seed trade in this country. Chairman Mann, in a private conversation I had with him, told me that he had found dead seed, burned seed, in cauliflower. Now, we seedsmen do not go around looking for the rascals in the trade. We do not know what they are doing in

some of the cheap department stores, and I have not the least doubt of the truth of what Mr. Mann tells me, but I do not know it personally nor have I found one of colleagues that does know of it. He tells me there is short weight in seed cartons. I do not know it and have not found a seedsman that knows of short-weight seed cartons, yet it is proposed to legislate against them: as such short measure exists in the liquor trade, and I suppose there are short measures in dry goods stores, but as I say, we do not know of it in ours. But if it does exist, if these department stores are giving Mr. Mann 13 ounces to a pound of grass seed, if he finds such in his investigations, I and all the other men in the seed trade are willing to help him to correct it; but why do you come up and accuse us of doing things that as tradesmen we have never done?

Another thing, there has been circulated all over the country in the Associated Press reports this statement which is true, which is fair on the face of it and on one side of it. But it is wrong in the way it was used in the report to the House of Representatives, in the report which accompanied the bill H. R. 13835, and it is a slur on our trade as seedsmen.

This report says you can not tell turnip seed at 40 cents a pound, cabbage seed at \$2 a pound, and cauliflower seed at \$40 a pound, apart. Now, in this lies the inference that the seed trade is guilty of substituting one for the other; and yet I have never known it done. I do not like to read that in the press reports sent out from Washington, through Congress, or by the Bureau of Plant Industry, which we want to believe is working with us and helping the seedsmen to do the right thing by the seed planters of this country. And I do not take any back seat from any man, living or dead, in Congress or out of it, or in jail or out of it, in my desire to help horticulture and agriculture.

Mr. TOWNSEND. How do they get the samples in the Department; do you know anything about it?

Mr. VAUGHAN. It is underground work, I believe. Am I wrong? You have experts of the Departments right here, and I would thank you to ask them.

Mr. MANN. We have them here, and we will have them and have had them.

Mr. VAUGHAN. Not on that question.

Mr. MANN. On that identical question. It was asked and answered and is in the record.

Mr. TOWNSEND. I was not here at the hearing, and I have heard more about it since our hearings than before.

Mr. MANN. I have no objection to going into it, but it will take a long time.

Mr. TOWNSEND. I do not care about it.

Mr. VAUGHAN. I claim that from the statement in there that the seed trade were in position to do it, there is an inference that they would do it.

Mr. TOWNSEND. What inference do you refer to especially?

Mr. VAUGHAN. The statement is made this way, and it comes from the catalogues of the reputable seedsmen. They say that you can not tell apart turnip seed at 40 cents, cabbage seed at \$2 a pound, and cauliflower at \$40 a pound by looking at it.

Mr. MANN. It is true, is it not?

Mr. VAUGHAN. Yes, it is true, under qualification.

Mr. MANN. I made the statement.

Mr. VAUGHAN. Everything is true under qualification. I am making no unqualified statement on my feet, because I know human fallacy and the possibilities of error, and I am not a lawyer.

This statement is used to imply abuses in the seed trade that should be corrected. You say "Look at the possibilities; 40-cent seed for \$40 a pound." But, Mr. Townsend, it has never been done, and I object to the sending out in the public press this statement of a possibility, making it imply the existence of an abuse that has never occurred; and that is why I am so resentful that I can not talk calmly. But I can answer questions, and I would be glad to answer any questions here, always remembering that a witness can get tangled up very easily when he is frightened to death.

Mr. TOWNSEND. You are laboring under a wrong impression. The committee does not want to tangle you up, or any other witness. Of course there are some pretty sharp questions, but we want to get the facts, and we expect men who are familiar with those facts to present them, and you ought not to be embarrassed.

Mr. VAUGHAN. There is my unfortunate manner, that I apologized for in advance. People that know me know that I get mighty mad at a certain apparently unfair practice; but I am not mad at my brother Mann. They tell me around the lobbies that he is the biggest-hearted man on the floor. Now, of course some of our seedsmen may find that hard to believe in the face of this drastic bill which Mr. Mann stands sponsor for. But I maintain we wish to give you facts, and you must not believe otherwise than this with the record my letters established.

I would like to answer questions and take the chance of being tangled up.

Mr. TOWNSEND. The thing I want to know principally is, first, assuming that there is necessity for legislation, we will assume that to start with, but it is a disputed question on your part, of course, whether this particular bill is a measure that would be workable without injustice to the seedsmen of the country. That is the thing I want to know more than any other thing.

Mr. VAUGHAN. I do not think it is workable as it is laid out; and I shall stand on my feet and protest until doomsday if I have to do my business facing a prison penalty for unintentional errors. I shall not consent to work under such a law until one is made by which every druggist that may sell strychnine and kill a man by mistake shall work under a similar law. I do not go unless he and other classes of merchants go. And there must be similar punishment for the worst insect pest in the horticultural line, one that has been legislated against by 37 States—the San Jose scale—and if Brother Mann has it on his trees in his nursery behind South Park, Chicago—

Mr. MANN. Which he has not, and the inference that he has is just as bad as the inference that you are selling cabbage seed for cauliflower seed, and the inference does not bother me.

Mr. VAUGHAN. I said if he has it, he will go with me, and if Tod Sloan is compelled to go, convicted on some future pure-horse traders act, our old soldier over there, Mr. Rice, my go with the rest of us into Fort Leavenworth; very well, but I am not going unless they do, and I will not willingly carry on my business under a law that

makes me a criminal to start with. I feel sore at being legislated into the fraud class.

Mr. MANN. Many people think they are above the law. You are not the first man who has thought so. A great many people have thought that.

Mr. VAUGHAN. We are ready if legislation is needed. There is no reputable seedsmen that is quicker than I am to help if legislation is needed.

Mr. MANN. Do you think Federal legislation is needed?

Mr. VAUGHAN. I have nothing to say about that until I see some statistics as to the proportion of the abuses claimed (which are largely new to me) compared to the volume of the seed business. The abuses mentioned by Mr. Mann are not known to the seed trade of Chicago to my knowledge. I have not been around buying that class of stuff and I have not found the scalawags who are selling it. If legislation is needed, no man will come to the front quicker than the man that Professor Trelease represented to you as doing real horticultural work in this country.

Mr. MANN. Do you think Federal legislation is needed in this country?

Mr. VAUGHAN. I will not say that the time has not come when a wise, carefully prepared measure that will work out ought to be passed, and I tell you that that man who supplies dodder or like vicious weed seed in grass or clover seed, poisoning the green fields of our newly irrigated lands in the West, working a wrong to posterity to a degree we may not estimate, comes just as near deserving a prison sentence as anyone, and as to that farmer who harvests his grass-seed crop with any and every bad weed in it should go to prison also. You know and can see that such a farmer is doing wrong when he knowingly harvests the two seeds together. Gentlemen, do not be afraid to make, if you deem it necessary to legislate, a wise and careful bill that shall not leave out of the reckoning the farmer seed grower. He will not average more honest than the commercial seedsmen. He can see the mischief in the grass and clover seed crop while it is being made, while the seedsmen can only try to undo it after the harvest be he ever so honest.

I have taken altogether too much time. If there are no questions, that is all.

STATEMENT OF MR. CURTIS NYE SMITH, OF BOSTON, MASS., REPRESENTING JOSEPH BRECK & SONS.

Mr. SMITH. After Mr. Vaughan's statement my statement in behalf of New England, which is rather a quiet place and up to this time has not been represented, I believe, by the statement of opinions in regard to this bill, will seem very quiet; but I will say that these business men of Boston, my brother-in-law, Mr. Breck—who is very ill, unfortunately, and felt very keenly his inability to come down here and personally say these things to you—and other Boston seedsmen are unanimous in their opinion. The opinion of Joseph Breck & Sons regarding the pending bill may be of some interest to you in view of the fact that the firm of Joseph Breck & Sons does not only a large business, but a varied business. It does a wholesale business and a retail business. It does a very large import business, and

a pretty good interstate business, and also a State business. The other seedsmen that I have talked with have expressed themselves fully, and if I may be permitted, I would like to state the reasons why they think that perhaps this bill does not conform with the report of this honorable committee to the House, which was recently rendered. The report as it now reads, Mr. Chairman, says this on page 2, and I will just read one sentence. I realize that we have taken a great deal of your time, and I shall probably not speak for more than five or six minutes:

The only way, therefore, of reaching the present situation is by forbidding to a limited extent interstate commerce in seeds which have been deliberately adulterated or misbranded, and forbidding the importation of seed either intended for adulteration purposes in this country or which has been adulterated before importation.

The provisions of the bill which is reported are very strict as to the character of seed which is imported, and also as to deliberate and willful adulterations of domestic seeds, but do not apply harshly to seed raised in this country, and which is not deliberately adulterated.

We ordinarily interpret a man's meaning by his actions and by his words. We understand that this bill, as your honorable chairman has reported it to the House, represents what you consider is absolutely necessary to prevent the adulteration and misbranding of seeds willfully—the willful adulteration of seeds. I read that purposely, and I want to say, as representing these seedsmen, that it seems to me that should be the intention of this act to do that. The bill as it is now presented does not represent to the seedsmen the meaning of the words in the report, and it is part of my duty here, gentlemen, to tell you that in so far as this bill or any bill that the Congress of the United States will pass which will prevent the willful misbranding or the adulteration of seeds will meet with the entire approval of the Boston people. You will never hear us make any statements from Boston which will prevent you from passing an act that will stop this intentional abuse of the seed trade. Seedsmen can not legislate for themselves. They can not regulate the actions of their confreres in the business. It is necessary for them to look after their own business.

The bill has been discussed by you. I understand that yesterday there was a long conference with your honorable chairman, or rather with the proposer of the bill—I may perhaps be mistaken about the chairman of this committee being present—and a good deal was talked over there, and it was quite evident that there was a good deal of feeling, and it was the intention of the proposer of this bill to meet the seedsmen and let them express their feelings on this business. That is something that is just as apparent to you and as necessary to you as it is to protect the purchaser. You want to hear the facts from these other men, as I understand it, and these facts are these, that in looking over the bill there is of course an entire desire to prevent the misbranding and the adulteration of seeds, and so far as that goes we might agree, but it goes further than that. It makes it possible to stop an honest man's business in certain ways that he can not possibly prevent. Now, the question has been put by your honorable chairman, "Do you think that something ought to be done to prevent this adulteration?" We say that it is necessary, undoubtedly, when the time comes. It may be now; but we urge that it can not be now. It may sound very strange to

you gentlemen, but it is only within the last ten days or two weeks that we have ever heard of this bill in Boston. We may be negligent; we may be busy. This time of the year is a very busy time with us. As Mr. Bruggerhof stated to you, the seedsmen are working night and day to fill their orders at this time of year. So that while it has not been suggested this afternoon, yet it seems to me very essential that this act should not be put through before the 10th of May without a due consideration of all the elements in this case.

There are two points in that bill that seem more repugnant to our idea of what the bill proposes than any of the other clauses; those are section 3, clause 1, and the fourth division of that, where it says:

If any seed or bulbs purporting to be of one kind or variety contain more than 2 per cent of another kind or variety, such other seed or bulbs being similar in appearance or of lower market value.

Of course, I understand the word "or" would not be seriously contemplated, because by the way this clause now reads it is quite possible to sell a very much better variety and we will be subject to the penalties of the act. That clause, as various people in Boston say, will seriously affect their business. In fact, some people have gone further and said it would ruin them. You have probably heard that.

MR. MANN. Tell us how it would affect their business.

MR. SMITH. In this way, that the seed that you attempt to have us differentiate we can not differentiate. You have heard these men talk about vegetable seed and flower seed. Those seeds are more particularly interesting to us than grass seeds. We say there are certain kinds of seed, and I will not repeat that because it has been gone through pretty thoroughly, except to cite one instance, which can not be separated, and if that is so, there ought not to be such an iron-bound rule as will affect the interests of the honest seedsmen. For instance, under this act, as it now appears, an honest seedsman that happened to have two or three seeds of one variety that are quite similar will be liable under the act. That does not seem fair. Take samples of the two species, *Lilium longiflorum* and *Lilium harassi*. The bulbs are very much alike and you can not tell them apart, and if by any accident on the voyage or in the custom-house those two should become mixed, we would be liable. I would like to cite this instance, given me by one member of the seed trade in Boston. He says of his own knowledge the two varieties were mixed by the customs officials. This bill applies definitely to that situation.

MR. MANN. You put that case as an extreme case, of course?

MR. SMITH. Yes, sir.

MR. MANN. Where, under this law, a man would be convicted and would not be guilty. But suppose you deliberately sell the *Longiflorum* for the *Lilium harassi*, or vice versa—I do not remember which is the most valuable—you disclaim any responsibility whatever for it in your seed catalogues?

MR. SMITH. Yes, sir.

MR. MANN. Do you think there ought to be no liability whatever on your part?

MR. SMITH. To that question that has been asked of various members I would say that I think that a complete answer to that is that any intentional adulteration, as in the case you have cited—or in this

case it would be a misbranding—ought to be prohibited. We stand ready for such things. We say that anybody that deliberately gives a man another thing when he orders one thing, and he gets another, is guilty of a serious offense; it is just the same as if he took his money out of his pocket.

Mr. MANN. Then you think there ought to be some kind of a punishment where the seedsman deliberately does this?

Mr. SMITH. Answering your question directly, I say I think there is a vast difference between the things, and it is not contemplated in the bill.

Mr. MANN. You think there ought to be some kind of punishment where the seedsman deliberately does it?

Mr. SMITH. I think that I make no concession in any way when I say, as I started out, I deliberately told you that any bill that will properly affect the seedsman who intentionally and deliberately adulterates or misbrands will receive the support of these people that I mention. Does that answer your question?

Mr. MANN. Yes; in a way.

Mr. SMITH. Can I answer it in any way more definitely or more fully? I am authorized to answer it more fully.

Mr. MANN. I do not think you are trying to avoid the question.

Mr. SMITH. No; I must say that I am willing to answer it.

Mr. MANN. That being the case, what is the best test of whether a man has deliberately done this or not? Would you require the Government in such a case to prove what the man had in his mind? Of course that is impossible except by proving the facts.

Mr. SMITH. In answer to that I would say that if the Government wishes to prove, as it has recently in Boston, or tried to prove, that a man used a vault, a safe, in the Boston post-office in a certain way and took out a certain amount of money—I think it is a direct answer to say that whenever you wish to make a felon of a man you have to prove a criminal intent.

Mr. MANN. If you shoot a man, and the fact is proven, you do not have to prove intent beyond that fact.

Mr. SMITH. Yes; and if you send out a thing that is just that way, you have your case, have you not? While it is not perhaps proper for me to state the question, it seems to me if the Government wishes to prove a man a felon, as this bill attempts to do, it ought to have the proof against him.

Mr. MANN. You can prove anything that he does, but to prove what he has in his mind, that is impossible.

Mr. SMITH. That is possible just the same as when a man walks out of here and takes a man's hat and he has got another one in his hand. Take the case of the seedsman, he has his bulbs in their proper bin. In the former case a man goes out and takes that gentleman's hat there. You just show the fact, there, and it is left to the jury, who must decide whether this man is a felon or not. It is left to them to decide that case, is it not?

Mr. MANN. Of course it is left to them in any event. When it comes to protection to the seed industry, for the future, you want it, do you?

Mr. SMITH. We certainly do.

Mr. MANN. You want a different provision from any ordinary provision. I was just asking that one question. I do not wish to disturb you in your argument.

Mr. TOWNSEND. I may not look at this thing just right, but if I have listened to the testimony correctly, I have not heard anyone of the gentlemen state that you want it differently from any other criminal law. Do you know of any other criminal law that does not require the intent to be proved?

Mr. SMITH. I do not know of any, but we have not got it here.

Mr. TOWNSEND. As I understand your answer to Mr. Mann's statement, you are in favor of a law that would punish a man that deliberately and intentionally commits a crime in the way of adulterating seeds, or misbranding if you make that a crime.

Mr. SMITH. It is a crime in this way. I think that imprisonment is altogether too harsh a punishment for the violation of an act which has to do with seeds. I think you can reach it in another way, just the same as they do in other places. Do I answer the question?

Mr. TOWNSEND. Yes, I understand.

Mr. SMITH. Then let me pass to the similarity of the seeds you spoke about. Mr. Mann just called my attention to the fact. There are also State laws where they do not require any such high standard, any such differentiation, any such classification of various seeds. The way this now reads it will mean that every seedsman will have to have an expert in his employ to detect every single solitary wrong seed or defective seed or any other kind of seed that is in his samples.

Mr. MANN. Where is that in the bill?

Mr. SMITH. That is apparent in this clause:

If any seed or bulbs purporting to be of one kind or variety contain more than 2 per cent of another kind or variety, such other seed or bulbs being similar in appearance or of lower market value.

Then the proviso reads:

Provided, That no seed or bulbs shall be deemed adulterated within the meaning of this paragraph when it is accompanied by a statement or label in the form and manner prescribed by the rules and regulations in this act provided for, giving the name and amount or proportion of each of the kinds or varieties of seeds or bulbs contained therein.

That seems to me the only way, unless you have 98 per cent purity of your seeds, which in this case does not represent the article that you designate on the label; you have got to tell what each component part of that remainder consists of, and it is only an expert that can do that, and when you are handling ton lots, it simply means impossibility. The report of this committee is all along the lines of the adulteration and misbranding of grass seeds and clover seeds. I can read you from the report—

Mr. MANN. It was out of courtesy to the seed profession that we did not publish the results of the examinations on vegetable and flower seeds; and if we had done so there would have been wailing and gnashing of teeth. If you want us to do it, we will do it.

Mr. SMITH. No; I do not want you to, because I think these men have shown very clearly that there might be mistakes, and it might be unsatisfactory to us.

Then it may be of interest to know what the director of the Maine experimental station says. They have a law in Maine which is not like this one in every respect, but down in Maine they have a law

which provides that you have to give the percentage of purity of the seeds, and state it on your label, and the director has stated in his report which I now have and would like to have made a part of the record if it would not take too long—

Mr. MANN. State the substance of it and put it in the record.

Mr. SMITH. He says:

The law respecting the sale of agricultural seeds was more particularly intended to apply to grass seeds than to ordinary vegetable seeds.

The objection of the Boston people is that vegetable and flower and cereal seeds ought to be omitted from this act. The reasons have been given by the gentlemen who have preceded me, and I will not take up your time to repeat them.

Section 4, clause 1, provides as follows:

First. When one kind or distinguishable-named variety of seed or bulbs shall be offered for sale under the name of another kind or distinguishable-named variety of seed or bulbs.

We think that in that case, in view of the fact that it is impossible to distinguish some of the seeds and bulbs, that clause ought to be amended in such a way that in case there is an unknowing mixture—that is, that is innocently done—the penalties of this act shall not apply. Then, further, in the second clause it makes it necessary to state on the outside of the package the exact weight and measure. That works a hardship on many seed men who put up their seeds in packages. For instance, one seed merchant in Boston told me that about January 1 it is absolutely necessary for him to put up these thousands and thousands of packages, and he puts his seed in a different house, in a different part of the city, and then brings them into his store, which is properly heated, at about this time of the year, and the consequence is, as every seedsman knows, that there must be some shrinkage in the size or in the weight; there can not help but be; and we suggest that while that clause is in there to prevent lessening weights, and things like that to which we have no objection, we would simply say, make it possible, as the Germans and the French do in their seed act, to take up and look after this small depreciation in weight due to desiccation. In section 6 there are these clauses which we also object to, and which have not been spoken of to-day, which is the reason I take up your time with them. In line 14, on page 5, it says, “or is or are otherwise falsely labeled in any respect,” regarding imported seeds, and in line 15 it says, “or is or are of a quality forbidden entry into or forbidden to be sold or restricted in sale in the country from which exported.”

In talking that over in the committee of the Chicago seedmen I understand that that ought to be qualified in some way. We find that that clause is not necessary, and that the further clause in line 17, “or is or are intended for adulteration purposes,” is not applicable to all seeds, because it will be quite apparent that there will be certain seeds, which it is claimed are adulterants, that can be and are used for agricultural purposes. To illustrate, take Canadian grass seed. Under the bill, under this clause, it will be absolutely impossible, under the opinion given in the report of the committee, to consider that any other than an adulterant, and we can not import that from any foreign country even for the purposes for which it is catalogued in seedsman's catalogues, and is sold over the counters as Canadian

blue grass. That will not be possible, and it seems to me that the objection is tenable, and that you might say "or is or are intended solely for adulteration purposes."

I pass now to clause 7 of this act, which we object to. Of course we may be wrong in this matter, but it seems to us that the innocent principal, or the house, who gives due attention and makes the most stringent regulations for carrying on business, should be exempt from prosecution for a fault that is unintentional, or perhaps is intentional on the part of the employee. It is a question whether in either case the individual or the firm ought to be protected by having a chance to set forth their case. This bill does not give to a man a chance to set forth any case, and whatever defense he may have, he can not get it in at all. We suggest that there be an amendment after the word "seeds," so that he can have his proper defense.

Another thing that appeals to us is that by the terms of this act the seedsman can have his property taken away from him by the Government. The opinion of the Secretary of Agriculture may be wrong. The seedsman has a chance to introduce testimony, to be sure, but it is not entirely a satisfactory trial. It may be recalled that in other acts Congress has passed it gives contestants an appeal and gives them a procedure in the act, and it is a proper method, and as in patent cases, it is quite possible, as I understand, to appeal to some commissioner or court—I do not know just what it is—to review the opinion of the Commissioner. The pure-food law, I will say in closing, is a good law. We appreciate everything that it has done for us in our lives and in our health.

Mr. MANN. We had the same objection to it on behalf of all the manufacturers and dealers in foodstuffs when we considered the bill first. The same arguments you are making now I have heard time and time again concerning the pure-food bill, concerning these clauses.

Mr. SMITH. May I just go on record in this respect? I will just say one sentence in reply to that, that in the adulteration of foodstuffs and drugs the manufacturers or the druggists deal with small quantities. They have every chemical possibility, easy chemical reaction, to determine the exact condition of the drugs, and the very worth of the bill is due to the fact that there can not be an adulteration of a food or a drug without the intention being present.

Mr. MANN. If you had heard the arguments that were made before us, you would not make that statement at all, because we were told a thousand times that these accidents would happen, these mistakes would occur, that there was no way of preventing them, that no house could protect itself, that they would all have to go out of business if we passed that law; and some of my best friends engaged in that business personally assured me that their establishments would be closed up if a pure-food bill was passed. But they are all thankful now that it was passed. Of course if it had worked as they feared it would work, and if this worked the way you fear it would work, nobody would be in favor of it.

Mr. SMITH. Of course the answer to that is that we are not in a position to argue about the conditions of that act. In fact, I have only read a part of it. But you can not measure our seeds with the same measure with which you measure foods and drugs. There is an entire difference, and you can not reconcile them, and any attempt

to do so is going to work a great hardship, and it seems to me that properly safeguarding the interests of the purchaser of seeds can be attempted without working such disastrous results to the dealers in seeds. I thank you for the opportunity of addressing you.

STATEMENT OF MR. S. H. WILLARD.

Mr. WILLARD. Mr. Chairman and gentlemen, I will endeavor to be very brief, and I will confine myself to one or two general statements, unless some questions should be asked me, for I realize that we are trying your patience very much by prolonging this session.

Mr. MANN. I assure you we are very much interested.

Mr. WILLARD. I am interested only in the garden and vegetable seed line, and I am not familiar with any other branch of the seed business, but I am quite familiar with that, and I have been very much interested in what my associates have said on these points concerning the garden and vegetable seed lines in the consideration of this proposed bill; and I feel that without exception I can indorse what they have said, though I hesitate to take up any of the same points and go over them again. There are one or two things, however, which I want to say, which I think may give some added emphasis to what they have said, and present it perhaps in a little different way. I am quite familiar with the efforts of seedsmen to improve their stocks and to give their customers the very best seeds possible, and they depend upon this to hold their trade and to satisfy their customers. The statement has been made here to-day that two-thirds to three-fourths of the business of seed firms is with the same people year after year, and in many cases has been for a number of years continuously, and in my own experience I know this is absolutely true. Now, it could not be maintained except on merit, and I wish to make the statement that as it appears to me the great bulk of the seed business is done on a high plane, that these errors are confined for the greater part to smaller purchasers, and possibly the dead seed question is of very small dimensions. What I want to say is that these things do not represent to any extent the transactions between seedsmen and market gardeners or large planters of seeds; that they occur only in the smaller package, where there is more liability to error of that kind, and in that case that it is not done with the intent to deceive or to profit by deception, but is entirely an error, or unintentional in some way; for certainly, if it was intentional, it would be done where the great pecuniary gain would come, in the large trades.

Then we are dealing with such a large variety of seeds. It takes the world, speaking broadly, to produce for America. We have to draw from a wide area, and seedsmen of experience are not only perfecting and selecting their stocks, but they are looking for sections of the country to produce the quantity required of the highest possible quality, and I believe it is a fair statement and a fair thing to assume, that this business is done very largely upon honor, because the results show it. We have the facts that their customers stay with them and that they are satisfied and pleased to give these same houses their patronage and confidence year after year. As a rule they do not go shopping around. And then, too, we have the statement which was made by Mr. Stokes, I think, that seeds do not always show

their proper percentage of vitality the first year. In some cases they do not show a large percentage of vitality at any time, owing to the climatic conditions, the difficulties which we are under in producing seeds, and it has been shown here by the statement that it often happens in years of short supply of seeds that seed even of low vitality is often at a premium among those purchasers of seed who understand quality and who have confidence that they are getting just what they are paying for. I could go on in this way perhaps for quite a while, but I really feel that I ought not to do so. I came here with the idea firmly impressed upon my mind, and I have not had it changed, that it would be better at this present time that this whole matter, so far as it relates to garden and vegetable seeds, should be omitted from the bill, because I feel that it is not important, that it is likely to bring about confusion and possibly lead to questioning veracity, and that it will have no good practical effect or benefit to the seed buyers who are buying in quantity seeds which they are depending upon for value in their market products.

Unless some one wishes to ask me questions, that is all.

**STATEMENT OF MR. CHARLES N. PAGE, REPRESENTING THE
IOWA SEED COMPANY, OF DES MOINES, IOWA.**

MR. PAGE. It has been mentioned several times, gentlemen, that the seed dealers have objected to there being a seed law passed. Such is not the case. This matter of yellow trefoil adulterations came up three years ago. I had the honor at that time of being the president of the American Seed Association, and I wrote to the Department of Agriculture, and later made a trip to Washington and talked with Secretary Wilson and with Mr. Brown who is here, and with Professor Peters to see if there could not be some law enacted which would help the seed dealers to keep trefoil and the other objectionable seeds out of the country. I was told at that time, that it was impossible except by putting on a high tariff, and that Congress would not enact tariff laws. We brought this matter up before the Seed Trade Association that year, and it was discussed, as to how we could have such a law enacted as would help up to keep it out. We are a unit in wanting a law to prevent these adulterants being brought in, and the low-grade seeds being brought in. We want to improve the quality of the seeds. But what we have objected to lately was this bill being brought up at the time when we are at our very men together, because they could not leave their business during this busy season. I do not think that any seed dealer, so far as I am acquainted with them, in the country, heard of this bill until the last days of February. The first copy that I saw of the bill was on March 3, and I forwarded that copy to the president of our organization.

MR. GREEN. That was the first I had seen.

MR. PAGE. I think that is all.

MR. MANN. I do not know that it is worth while making any statement about it, but that statement is quite unfair to this committee. I would like to have that much go into the record.

MR. PAGE. In what way, Mr. Chairman?

MR. MANN. It leaves a wrong impression.

Mr. PAGE. If there is any misstatement, I want to make it right now, but I do not think there has been any misstatement made. We have wanted a law against the importation of adulterants and low-grade seeds, as we believe such a law would help us.

Mr. MANN. I understand.

STATEMENT OF MR. E. V. HALLOCK, OF QUEENS, N. Y.

Mr. HALLOCK. Mr. Chairman and members, first I wish to state that this committee appreciates the unusual courtesy that Mr. Mann extended to them yesterday, of hearing them in an almost all day session, and his explanation of things that we thought were almost unexplainable took away. I may say, nine-tenths of the fear that the seedsmen had of the passage of this bill. Before proceeding to take your attention for a few minutes, I wish to speak here, lest I forget it, of what Mr. Hubbard spoke of when he asked the question whether notices were sent to the firms whose seed had been tested and found wanting. I think that the committee here should request the Department to send a letter to a man or firm where his seed was found deficient in vitality, asking him as a criminal is asked before he is hung, if he has any reason why sentence should not be passed, and I think in some cases the firm might be able to make some peculiar and extraordinary explanation. I think that most firms would think this a very desirable thing to do.

In regard to this bill, there is one clause that the members of this committee think very dangerous, and we are a little afraid of the arbitrary enforcement of the penalty. I refer to the imprisonment clause. They all seem to be afraid of getting behind the bars, and our business does seem to call for some little more than ordinary consideration, from the very nature of it. It is strange to state no seedsman is in control of his product before it reaches his hands. In other words, he does not know what the harvest is going to be. The germination may be low, the crop may be almost a failure. He can scarcely fix prices. His germination for a new crop of seed may be much lower than that for a crop of seed one year or two years previously harvested. That comes from the whims of nature. That is not all. When this product is sold by the seedsman and passes into the hands of his customers and is planted by those almost innumerable customers there is a chance that each customer is liable to plant that seed under adverse conditions. A man may think the conditions are all right when in fact they may not be so. Climate, drought, and flood enter into the results obtained by the 200,000 customers of one seed firm.

There is another thing, we think, which needs consideration. In the busy season—and the business of the seedsman of twelve months is almost crowded into three months—the filling of orders amounting to 2,000 or 3,000 a day leaves room for more errors to occur and more mistakes to be made than in almost any other business that can be systematized and worked out on the basis of a twelve months' demand. Then think of two or three hundred thousand customers planting those seeds, two-thirds of whom are almost entirely inexperienced. Self-preservation is the first law of nature, and loss of confidence among the two or three hundred thousand customers of that firm means ruin to the seedsman. The only way

that he can retain the confidence of his customers is by giving them seeds that will produce results as he claims they will do. I have not made that quite as clear as I thought I could, but I think you can easily see that a seedsman works under somewhat more difficult conditions than an ordinary tradesman. I am not going to refer to any particular line of business; but first, he has no control of the quality of his crop coming in and he has no control over the planting of his crop going out when it has gone out. He is, as you might say, at the mercy of the people who plant his seeds. Another point that has been raised is that there is always the possibility of a dishonest man who plants his seed and claims that the seed was no good, and wants damages. Then, in the filling of this great number of orders by sleepy people, tired people, in the height of the season mistakes are likely to occur, and I think that calls for almost special consideration. We realize, by Mr. Mann's explanation, why these clauses are necessary to convict. He tells us you can not convict without them, and it seemed we understood what he said. But I ask you if we are not entitled to some little extra consideration.

I am going to take up the guaranty and the warranty and the reliability clauses. That has been more talked over and more discussed, and there has been more difference of opinion on it than on anything that has ever come into the seed trade. I am like Mr. Vaughan; warranty, guaranty, and reliability do not mean anything at all unless the amount is expressed right there after it.

Mr. MANN. Mr. Hallock, there is nothing in this bill on that subject whatever.

Mr. HALLOCK. Perhaps there is nothing in the bill, but I think the chairman has said——

Mr. MANN. I just wanted to call your attention to that fact.

Mr. HALLOCK. But the chairman has frequently asked the question, "Do you not think you ought to have some liability or warranty or guaranty?" I say yes, if the purchaser will pay for it. I say to the purchaser: "What do you want, a guaranty of \$1, or \$2.50, or \$10, or \$100, or a \$600 guaranty of a pound of seed that you may plant?" Whatever he wants we will agree to. Let him say what he wants, and if it is \$2 or \$500, I will get insurance and give him his guaranty if he pays the percentage. Yes, we will guarantee seeds. But it is meaningless unless there is a specific amount attached to it. What does a warranty deed mean? It means that that piece of land there is warranted to be free and clear, and you get it; and a warranty without a description or without an amount attached is meaningless, and the seedsmen of this country are willing to give a guaranty, and if every customer wants an insurance policy he can get it for any amount. I want to read a set of resolutions formulated by this committee of seedsmen now present, and then I have finished. These resolutions are as follows:

Whereas Representative James R. Mann has introduced into the House the bill H. R. 13835, the main purpose of which is the prevention of the importation and use of inferior grass, clover, and forage seeds or adulterants of the same;

Second. Whereas the American seed trade believe their industry primarily to be one of the most beneficent, helpful, and necessary to the upbuilding of agriculture and horticulture, which underlay the greatness of our country; and

Third. Whereas the American seed trade fully recognizes the need of a wise, protective, and practical measure in their own interest as well as that of every planter; and

Fourth. Whereas the American Seed Trade Association here assembled are entirely in accord with that part of the proposed act which would exclude the importation of all misbranded seeds, all seeds containing adulterants as such, and all adulterants themselves, and would correct any abuses that may exist;

Fifth. Whereas the working out of a practical and operative law has proven as difficult here as in England and Canada:

Be it resolved, That the Seed Trade Association ask that sufficient delay be given for the appointment of a commission from the House committee having the bill in charge and a committee from the seed trade and experts from the Bureau of Plant Industry to make such adjustment of Mr. Mann's bill as the practical workings of the act seem to require.

CHAS. DICKINSON.
JEROME B. RICE.
GEO. S. GREEN.
J. C. VAUGHAN.
WALTER P. STOKES.
CHAS. N. PAGE.

Mr. MANN. I am very much obliged to you gentlemen for the information you have given us and I want to say this: I sent a copy of this bill and report to all of the members of your association and to a large number of other persons who are engaged in the seed trade. We picked out from the published list that the Agricultural Department has the people to whom they should be sent, and I have received a great many letters from people interested in the seed trade, which I think, possibly, I will ask this committee to have printed in the hearings, because many of them contain valuable suggestions. If you gentlemen have any other suggestions which you would like to make after you go home, and will write them down and send them here, either to me or to any other member of the committee, I assume we would have them printed, probably, in connection with the hearings, or later give consideration to them. I will say it is doubtful whether this committee will have an opportunity to consider in detail this bill any further at this session of Congress. It is quite certain that it will not get to its passage at this session of Congress.

Mr. GREEN. I want to thank you personally, and I want to thank the committee, for the consideration and courtesy which we have received here, and we feel that the understanding between the law-making power here and the seedsmen is far clearer than it has been, and we feel confident that good will result from it.

Mr. MANN. Thank you. Without objection the committee will stand adjourned.

(At 5.30 o'clock p. m. the subcommittee adjourned.)

WASHINGTON, D. C., April 27, 1908.

Hon. JAMES R. MANN,

House of Representatives, Washington, D. C.

SIR: Referring to the hearing on the 21st instant before the Committee on Interstate and Foreign Commerce of the House of Representatives, upon the bill H. R. 13835, given to the various members of the seed trade of this country, and particularly referring to your suggestion at the close of the hearing in the afternoon that letters might be sent to you by such seedsmen as cared to do so, the same

to be printed with the report of the hearings, I beg to submit the following statement:

In opening I wish to state as emphatically as a statement can be made that I do not sympathize with the fraudulent adulteration of seeds as the same has been said to exist, through the investigations made by the Secretary of Agriculture. Further, to the end that these harmful practices may be stopped, I am in favor of the enactment of a law which will make the fraudulent adulteration of seeds an offense, and yet will permit the honest seedsmen, who, I am sure, constitute a very great majority of the seed trade in this country, to conduct their businesses honestly and safely.

I desire to call attention to some facts with reference to the seed trade, which I trust will receive the consideration of the committee in making up the bill in its final form for passage.

First. The garden seed should not be placed in the same class as field seed, as it is impossible, in a large majority of cases, to tell the various members of a family of vegetable seeds apart in the grain from the appearance of the seeds. As has been mentioned before to this committee, in the case of cabbage, with its various members—kale, borecole, cauliflower, Brussels sprouts, and the various kinds of cabbage—the seeds are so nearly alike that it is simply impossible to make a separation or to make any distinction which will be at all accurate, while in field seed the adulterants are easily told, at least under a glass, and the mixtures can be designated to almost a certainty.

Second. Frequently mixtures have been made, through no fault of the seedsmen, from the carrying of the pollen from various fields, which might not be anywhere in close proximity, by bees and by wind storms. Bees have been known to carry pollen for long distances, and the mixture occasioned by their work does not show in the seed in the grain, nor can it be separated. It is a common theory that the cantaloupe and pumpkin are susceptible to mixtures of this kind, and for that reason seedsmen have been very careful in planting the cantaloupe and pumpkin widely separated.

A mixture of this character would not show itself until the second crop is harvested, and the seedsmen would be put to blame for what nature has done, which he was unable to prevent. It is simply impossible for a man having ever so large a farm to control what his neighbor shall plant on his farm, and for that reason he is put in a very embarrassing position because of a mixture that might occur through no fault of his and utterly beyond his control.

Third. One of the strongest illustrations of nature's unreliability and of the likelihood of her creating false charges of the sale of bad seeds by the seedsmen, under such an act as H. R. 13835, which has ever come under my observation, is the following:

Several years ago I sold to Mr. John Eickman, of Brookland, D. C., a sealed package containing a quarter of a pound of Snowball cauliflower seed. Mr. Eickman planted approximately one-half of the seed in his hotbeds in the late winter, transplanting these plants to the open ground at the usual time in the spring, and the product of these plants was an entire failure as to their producing cauliflower. Mr. Eickman reported the same to me and made the statement that I would have to refund him the money which he had paid me for the cauliflower, which I agreed to do with willingness, but

I made this request of him: I asked him at the time if he had any of the same lot of seed left. He told me he had about half, or the remaining portion from his winter's planting. I, therefore, having confidence in the man's reliability and his ability as a market gardener, in which business he had been engaged for many years, made him the proposition, that if he would plant the balance of the cauliflower seed which he still had in his possession in the original package, that I would bear the loss of half of his crop if the seed did not turn out well, and make good heads of cauliflower.

He thereupon agreed to plant the remainder of the seed, which he did in the open ground about the month of May, and the crop was so good that he brought in one of the heads of cauliflower, which I had photographed and a print of which I have since used as an illustration in my catalogue, a copy of which is pasted on the margin of this letter. (Not printed.)

This should be conclusive evidence to your honorable committee that nature sometimes conspires against the legitimate and honest seedsmen.

Mr. John Eickman is now residing in the District of Columbia, within call of your honorable committee.

When Mr. Eickman reported this failure to me it was of such serious importance to my business life that I could not, under any circumstances, have passed it over without proving conclusively that my seed was as good as could be bought. Had I passed this over, my sales of cauliflower seeds would have been a thing of the past, and I would have been unable to have sold anything in the way of cauliflower seed for years to come. Had Mr. Eickman not been an honorable and reasonable man, and had the bill H. R. 13835, as it stands at present, been upon the statute books, I might have been prosecuted successfully as having sold some worthless substance as Snowball cauliflower, when in reality the seed was genuine and produced, under the more favorable climatic conditions in the late spring and summer, a prize crop.

Fourth. Another fact which I wish to refer to, and I think careful investigation will bear me out, is that seeds frequently, in the course of transportation in bags and in handling from warehouses and boats, will vary very materially in the different portions of the sack or container. This is occasioned by the light seed drifting to one end of the bag and the heavy seed drifting to the other end. While this might not occur in a number of different kinds of seeds, yet it does occur and will occur in a number of other kinds. For instance, you take a bag of redtop grass seed, and with its natural mixture of timothy seed, and after this seed has gone through the most rigid cleaning that is possible we find there is yet left a proportion of timothy seed, sometimes more, sometimes less.

Now, in the handling of this seed in bags the timothy naturally drifts to one end and the redtop to the other, thus producing a different percentage of each in one end of the bag from the percentage of the same seed in the other end of the bag.

Assuming the bill H. R. 13835 to have been enacted into law and a Government inspector to have entered a seed store and drawn a sample from such a bag of redtop seed which would have averaged for the whole bag 10 per cent of timothy, the sample being taken from the end of the bag containing more than 10 per cent of timothy,

he would probably institute a prosecution against the dealer if the dealer was selling that seed as containing 10 per cent of timothy, for the reason that the sample so drawn would show a different and greater percentage. And that sample would be used against the seedsman in court.

We, as seedsmen, I believe to be as honorable as any class of men in this country. In fact our business depends almost entirely, or very largely, upon the class of goods which we handle.

There is no seedsman of any reputation in this country who could afford to knowingly put out anything but what was of the best quality, and I feel assured in making this statement that if you could refer to the contract books of the various seedsmen, in 90 per cent of all the contracts made or negotiated there is either written in the contract or written in a letter accompanying the contract a statement that the seed must be pure, true to name, and of good vitality, and the large seedsmen carry on exhaustive and painstaking experiments as to the quality and percentage of dead seeds and vital seeds in every sample of seed received for the protection of his own business. But notwithstanding these precautions the seedsman can not guarantee a definite percentage of germination. The seeds naturally deteriorate and the percentage of vital seeds grows less.

Further, the farmer is not always reliable, and a bill of this character would only lead to frequent and unjust litigation, and I am of the opinion that a bill to be placed in active force and enforced to the letter, such as bill H. R. 13835, would put all the seed houses, any make no exception—all the seed houses of this country—out of business.

Further, if this bill is only partially enforced it would cause the seedsmen to go to vast expense, and would of necessity increase the price of seeds from 50 to 150 per cent. I speak of this more especially in regard to garden seed. In field seed the enforcement of such a bill might not increase the cost of seed to the farmer more than 25 to 50 per cent. This would be a serious hardship upon the farming element. We can only judge by our experience of the present year. When clover seed was almost prohibitory in its price, we find that at least 20 per cent of the farmers have not used clover seed to the extent that they ordinarily use this seed. This works very serious consequences upon the farmers. Clover, as your honorable committee is no doubt aware, is not only used as a forage plant, but is used as a plant for the building up of the fertility of the soil. It is a theory with the farmer that as long as he can produce a good crop of clover his farm will not depreciate in value as to its fertility.

I am of the opinion that if clover seed were to continue at the unreasonable price which would be occasioned by this drastic bill, that the farming element would so seriously feel the added cost that it would be a serious hindrance to the farming industry of this country.

Now, to look at this in another way, I am of the opinion that if this bill were to be put into force, there would not be a single seedsman, if it were possible for him to remain in business, willing to give the hitherto customary credit to the market gardener or market farmer. I have no statistics to bear me out, but, judging from my personal business and from what I learn in conversation with other seedsmen, at least 70 per cent of the market gardeners buy seeds on credit.

Now, we find that 99 to 100 per cent of all the seed sold for cash gives satisfaction, and there is comparatively no complaint, but we find that where a credit customer has been careless in his cultivation of crops and is unable to meet his bills, that the seed is almost invariably blamed for the loss of a crop. A bill of the character of this, H. R. 13835, would be an incentive for the gardener and farmer to make litigation and cause unnecessary trouble for the honest seedsman, and for that reason it would be impossible for a seedsman to do business on the basis that he has been accustomed to do it, even though the law might not be enforced to the letter.

Our business is necessarily one which requires men of considerable experience. It is impossible in our rush season, and our business is one of only two short seasons in a year, for us to pick up additional employees and place them behind our counters to fill orders that may come in, and for that reason clerks, on account of the rush of orders and limited force of men, might make a mistake, and that mistake, with the bill as it was reported to the House, makes the employer liable to a fine, and a second mistake to a second fine and imprisonment, with no distinction between the penalty for mistake and for intentional fraud.

I am decidedly of the opinion that the bill is unjust as to the amount of the fine and as to the imprisonment clause. It being an untried bill, I do not think that it is either fair or just to place a man in the position that he has the prison staring him in the face because of a mistake which might happen, and has happened even in the Department of Agriculture, where they have unlimited means to carry on the distribution of seed.

If you force the seedemen to cut off credit from the farmers, you will work a hardship upon the smaller farmers which, I am of opinion, members of the Committee on Interstate and Foreign Commerce would hesitate a long while before doing.

When we remember that millions of people are depending upon the market garden for their sustenance, and I feel safe in making the statement that 70 per cent of these people depend upon the seedsmen for more or less credit, we can but imperfectly realize the hardship that would be occasioned by this.

I sincerely hope that the bill, before it shall pass the House of Representatives, will be amended on substantially the lines suggested by the seedsmen at the said hearing on the 21st.

Very respectfully,

F. W. BOLGIANO,
935 B Street Northwest, Washington, D. C.

ROCKY FORD SEED HOUSE,
Rocky Ford, Colo., April 18, 1908.

MR. JAMES R. MANN,
House of Representatives, Washington, D. C.

DEAR SIR: I have yours of April 9 inclosing copy of the bill known as the pure seed bill, and replying to same will say during the hearing on this bill Mr. Bartlett asked the following question:

"Speaking of the adulteration of seed, is it not a fact that the very best seed obtainable will not result as to the character of production,

but will depend a good deal upon the soil, the manner of cultivating the seed, and things of that sort? One man on one side of the road will have the same seed as another man on the other side, but one man will have a different method of cultivation from the other and will get a better result. You can not always expect the result from the seeds?"

This question showed that Mr. Bartlett was quite familiar with conditions as they are met with very frequently.

Mr. Tracy's answer in part, "Cultivation is quite as important as the seed," was also practical, but the larger portion of his answer was foreign to the question and left unexplained a question which should have been very carefully and fully answered.

Being an extensive grower of vine seeds, I speak of my experience in this line.

I planted 85 acres of Mammoth Yellow Summer Crookneck squash in rows one-half mile long, north and south. The planting stock was of the very closest selection. The larger portion of the land was newly broken sod land, finely disked and well prepared, but two strips, one about 20 rods wide and one about 30 rods wide, extending across the field east and west, which had been plowed two years before and was what is termed old land.

All the land was irrigated and cultivated in the same manner. The squashes on the old land were 50 per cent larger, a much deeper yellow color, and much more heavily warted than those on the new land. They did not look like they came from the same lot of seed, and had the old land all been in one field and the new land in another adjoining field, the grower having the new land would undoubtedly have thought he was given seed of a very ordinary selection of Dwarf Yellow Summer Crookneck. The one on the old land would have been well pleased with his choice stock of Mammoth Yellow Summer Crookneck.

I have a very fine strain of Improved Kleckley Sweet watermelon, and from the choicest seed planted a field of 15 acres. Nearly all the acreage was planted on land on which no watermelons had been grown before, but a narrow strip was planted where watermelons had been grown two years before. The land which had never produced watermelons before produced large, finely shaped melons of excellent quality, and hardly one off-shaped or with black or shriveled ends, while the land where watermelons had been previously grown was very noticeable, there being few large, well-matured melons and many off-shaped melons with black and shriveled ends. Had these fields been grown by different growers one would have thought well of the seed and the other would have been sure he was furnished poor, worthless seeds.

Mr. C. H. Mathis, of Blackville, S. C., tells me that in the South no grower of experience will plant watermelons two years on the same land, even after four or five years.

Good seed is necessary, but proper soil, proper depth of planting, proper cultivation, proper climatic conditions, etc., are also necessary.

As to vitality. The most valuable sorts are often those of which it is most difficult to get high germination tests, while practically every seed of common and undesirable sorts will usually grow.

For instance, the Improved Kleckley Sweet watermelon, selected for twelve years to produce the finest possible eating qualities and at

the same time to improve its shipping qualities, shows a tendency to produce less seeds to the melon each year and many melons nearly seedless, and a test of 80 per cent to 85 per cent on this variety is very good. The grower plants 10 to 12 seeds to the hill and gets 6 to 8 plants. He thins down to one plant and that plant, given proper growing conditions, produces very desirable fruits; while the Kolb's Gem is full of seeds, producing twice as many pounds per acre. The seeds usually test near 100 per cent, but when matured, if the grower has ever enjoyed the privilege of eating a first-class Kleckley Sweet watermelon, the Klob's Gem is not at all desirable.

I am heartily in favor of a law which will make it unpleasant for the person who willfully adulterates or misbrands seeds. At the same time, often a test of only 80 per cent to 90 per cent will be gotten on very fine selections of seed and at this test a fine selection of Rocky Ford cantaloupe seed is worth several dollars per pound to market growers, while a careless selection of seed, even though it test 100 per cent, would be expensive as a gift.

Let us have a law that will drive those who willfully adulterate seeds out of business, but let it not be such a law as will make it extremely hazardous for the seedman who is anxious to give the best possible values to his customers and who is willing to devote his life work to the improving of varieties now being grown and to developing new and valuable varieties.

Yours, truly,

D. V. BURRELL.

SHEBOYGAN, WIS., *April 25, 1908.*

HON. JAMES R. MANN,
Washington, D. C.

DEAR SIR: We acknowledge receipt of your letter of the 22d, and it gives us great pleasure to see that your aim and the aim of the seedsmen are almost identical; that is, to have a pure-seed law which will do away with fraudulent practices without unduly interfering with legitimate business.

From your bill we think it was principally aimed at field seeds, such as grass and clover seeds, which we think have at times been handled by some dealers in such unwarrantable condition as to make proper restriction necessary, and a specific bill along these lines and along lines of similar seeds of such varieties as may be easily mixed with dead or impure seed of similar nature is of vital importance and to the best interest of the country, but to include under a severe law other grains that can not be mixed so as to deceive the eye and thus create a great deal of misunderstanding and contention and probably financial loss upon such grains as need not properly come under a pure-seed bill, we think should be avoided as far as possible.

From what we recently learn from various sources regarding the interview which a delegation of the American Seed Trade Association have had with your committee we think you are fully aware of some of the hardships which might possibly be brought about by certain parts of the bill, and from your attitude it seems to us that you are as ready to make proper changes or even delays, if necessary, as the seedsmen are to ask it. With such kindly consideration on

your part we have little or no fear of the bill being passed until it is relieved of any undue or threatening restrictions to the trade generally, and it gives us great pleasure to so understand and expect.

Thanking you for the kindly consideration you are giving this matter, we remain,

Yours, truly,

THE JOHN H. ALLAN SEED CO.,
Per E. M. P.

[Crosman Bros., garden, field, and flower seeds.]

ROCHESTER, N. Y., *April 25, 1908.*

HON. JAMES R. MANN,

Washington, D. C.

DEAR SIR: The writer is sorry to trouble you with more detailed matter, and begs to advise you that in this morning's mail we are in receipt of a letter from the office of the Chief of Bureau of the Agricultural Department, signed by B. T. Galloway, Chief of the Bureau, to the following effect:

"MESSRS. CROSMAN BROS.,

No. 503 Monroe avenue, Rochester, N. Y.

"GENTLEMEN: Your letter of April 9 to the Hon. James R. Mann relative to the Government test of seeds and packages obtained promiscuously from grocerymen and drug stores has been referred to me.

"I may say that we do not care at the present to furnish anything more on the subject than was published in the report on the seed bill.

"Yours, very truly,

"B. T. GALLOWAY."

The matter in question is in regard to a paragraph published on page 5 of Report No. 1278 in regard to the "pure seed bill," and supposed that all Government experiments were the property of the public, and by calling for a more detailed statement of this particular test it could be had. The writer is very much interested in the pending seed law and Government reports in regard to seeds, and feel that as a large and long-established house they should be favored with such report, upon a request to do so, and supposed that the result of such experiments and tests was the property of the public, and can get very little satisfaction from Mr. Galloway's letter, a copy of which we have given you herein. We remain,

Yours, very truly,

CROSMAN BROS.

[Francis Brill, wholesale seed grower.]

HEMPSTEAD, N. Y., *April 18, 1908.*

HON. JAS. R. MANN, M. C.

DEAR SIR: Responding to your favor of the 9th, I had already examined the bill known as "pure-seed bill," and while I have no doubt that your intentions are fair and honorable and well meaning, yet, with an experience of fifty years as a grower and dealer in seeds and a full apprenticeship with my father and as a clerk in New York

and Philadelphia seed houses. I can not conceive how it may be possible to regulate the seed trade of the United States. It might be possible to hold the grower—the bona fide producer—for he must know just what he is handling and selling.

I am writing now more particularly as to vegetable seeds, beyond which I have no personal interest, as I deal in no other. Comparatively few seedsmen (dealers) grow their seeds—not one grows all he sells—and the great majority do not actually grow a pound, and a good part of what they sell may have passed through several hands before they reached the jobber or the retailer. Particularly is this the case with imported seeds. To illustrate: Some years ago B. K. Bliss & Co. imported from Vilmorin, Andrieux & Co., of Paris, France—wholesale seed merchants with a world-wide reputation for reliability—a lot of cauliflower seed, very expensive, which retailed at \$3 or \$4 per ounce, which proved to be Savoy cabbage seed, and investigation showed that a dishonest clerk, who was about to be discharged, displaced the cauliflower seed, substituting cabbage seed, and labeled it as cauliflower. To bring it nearer home, I have a very superior strain of Danvers carrot and have had seed grown here, pure as it could be, but I could not compete in price at wholesale with California-grown seed, so I conceived the idea of sending Long Island stock seed to an extensive grower in California with an excellent reputation and have a quantity grown. I contracted for 1,000 pounds and received 835 pounds, of which I sold the first season about one-half, and in due course ascertained that instead of an orange carrot 10 per cent were white.

There are many ways in which a seed dealer may get a bad deal and yet personally be strictly honest. So far as I am aware, the seed business is the only one not controlled by a trust; on the contrary there is not only competition but opposition—strong—in the trade.

The best thing to do with seedsmen who sell impure seeds is to “give them rope enough and they will hang themselves.” Dishonest dealers can not last; in half a century I have seen many go to the wall. I regret that I shall not be able to appear before the committee on the 21st.

Thanking you for courtesy,
Yours, respectfully,

FRANCIS BRILL.

[Simon P. Schoon, grower and shipper of potatoes, onions and onion sets, cabbage, etc.]

RIVERDALE, CHICAGO, ILL.,
April 18, 1908.

Hon. JAMES R. MANN,
Washington, D. C.

DEAR SIR: I and my neighbors in this vicinity use for sowing annually at the present time probably 20,000 pounds of onion seed. We have been at this work for a number of years, and although we have bought onion seed from growers as well as from seedsmen, and although some of us have grown onion seed ourselves, we have never been able to get rid of certain dead seeds which is demanded by your law. We do not see why the law should make every man a criminal who handles seeds the way nature makes them grow. We

are still buying seed from seedsmen in different cities, but mostly from Chicago, and we can't quite see why the law should make these seed dealers subject to imprisonment in case they sometimes make mistakes, or in case seeds do not grow well under the conditions of our land and of the different seed crops any more than to make the clothing merchants liable if they sell us shoddy coats or paper-soled shoes, or doctors if they can not cure us.

We have read the law as you have it prepared, and we think every planter who buys and uses even the best seed he can get will frequently be liable. So your humble servants would like to have you modify that law which you have prepared.

Respectfully, yours,

S. P. SCHOON.

CHICAGO, *April 22, 1908.*

Congressman MANN,
Washington, D. C.

DEAR SIR: We read this morning an article in the Chicago Tribune in regard to your pure-seed bill. As we are growers of pedigree seeds, we are very much interested in the above bill, and would appreciate very much if you would send us copy of same or any other information you might have at hand.

Thanking you in advance, we are,

Yours, truly,

THE GARTON SEED Co.,
W. O. MOSS.

LODI, CAL., *April 17, 1908.*

HON. JAMES R. MANN,
House of Representatives, Washington, D. C.

DEAR SIR: Your favor of the 3d instant and a copy of your pure-seed bill have had our careful attention.

Adulteration of seeds should be stopped. Small packages of seeds sold on commission are the cheapest and poorest, generally speaking. Good seeds, the very best that are or can be grown on a commercial basis, will rarely come up to 98 per cent "pure," as your bill defines.

While there are glaring wrongs committed in the adulterating and misbranding of seeds, we believe that your bill would work a greater damage.

A more moderate beginning should, in our opinion, be made in a matter so largely beyond the control of any single grower or dealer. No grower can have his seeds 98 per cent "pure," free of weed seeds and "rogues," not to mention the kernels or grains therein that will not grow.

We do not think it wise to enact the bill H. R. 13835.

Very respectfully,

THE HAVEN SEED Co.,
E. M. HAVEN.

GARDENA, CAL., *April 17, 1908.*

Hon JAMES R. MANN,

House of Representatives, Washington, D. C.

DEAR SIR: We have your valued favor of the 9th instant, requesting our views on your "pure-seed bill," and regret that it did not reach us earlier, that we might have had more time to answer it.

Your purpose in introducing such a bill is no doubt intended to be of public good in protecting a deserving class who depends on the honesty of the seedsmen, in many cases waiting nearly a year before knowing the results, and no doubt there are cases where unscrupulous venders, as in all other trades, are too indifferent in their selection of seeds for this very important business; but we believe your bill to be too binding and jeopardizing to the general trade and will be likely to subject the seedsmen and growers of thorough practical knowledge, and who are as careful in making their selections as it is possible, to unavoidable litigation by men in office, probably of much less knowledge of the business.

For instance, from No. 24, page 2, to No. 10, page 3, in your bill we consider 2 per cent too severe; as, although we do not grow these seeds, we believe it to be impossible for the growers to supply it at all times as perfect that there may not be more than 2 per cent mixture of the grasses, clovers, and other seeds named, as that amount of mixture is liable to take place through the thrashing and cleaning of different varieties, as it has to go through so much machinery.

On page 3, No. 23, to page 4, No. 5, paragraphs 3 and 4, we consider these two paragraphs are likely to cause much trouble, as some officials may consider 2 per cent dead seeds sufficient cause to arrest the vendor and inflict the penalty of the law upon him; whereas if all seeds will average 75 per cent of vital seeds, the growers of these seeds should and would be satisfied, as that is as much as seeds harvested in an unfavorable season will average, and oftentimes much below this, and if the growers can not dispose of their seeds on account of the vitality not being equal to the requirements of the Government, which may be 80 per cent, 90 per cent, or 98 per cent, then seed growers will have to give up that business and turn their attention to some other industry.

Pure seeds should be supplied as well as pure food, but the former are produced by nature, while the latter is prepared mostly by man, consequently seed growers have little power over the vitality of seeds produced, but are dependent chiefly on seasons.

We trust your bill will be amended to suit your purpose without endangering the trade of the legitimate seedsmen, and regret that we are not able to attend the hearing in person.

We are, dear sir, very truly, yours,

JOHN BODGER & SONS,
Per JOHN BODGER.

MARBLEHEAD, MASS., *April 22, 1908.*

Hon. JAMES R. MANN.

RESPECTED SIR: My son, in the rush of business, being behind in his correspondence (my late business being now his), has asked me to reply to yours of 3d instant, accompanying House bill relating to adulterated seed. As we are not importers of grasses or clovers, or

wholesale dealers in the same, the portion relating to them does not affect us directly. Have been for fifty years striving to supply the public with pure seed, and I believe that this bill will be a help toward that end, and so far I welcome it. Whether the 2 per cent limit for impurity among the grasses is, practically, the wise limit I must leave to the wholesale dealers to decide. Certainly no law can be too severe on those who knowingly sell bad seed to their fellow-men, and every honest seedsman desires to have such weeded out from the trade.

Was pleased to read the name of our firm among those who had not dodged their responsibility for the seed sold. I believe I was the first seedsman to warrant the quality of seed: it can be found in my catalogue issued forty years ago. I beg to remain,

Most truly, yours,

JAMES J. H. GREGORY.

SHEBOYGAN, WIS., *April 20, 1908.*

HON. JAMES R. MANN,

House of Representatives, Washington, D. C.

DEAR SIR: Your letter of the 3d came duly to hand during absence of writer, which has caused considerable delay in our reply, which please pardon.

We greatly appreciate your endeavor to formulate a pure-seed law which shall correct some of the glaring and unfortunate conditions in certain classes of seeds, but it seems to us that it is a very difficult matter to make a law which should cover alike all kinds of seeds, especially so if there are to be heavy penalties, so ingrafted into the bill as to make it possible to bring fine and imprisonment upon an innocent dealer, simply because of some error which could not be detected by sight or otherwise until it was discovered in the growing crop, and we also believe it would be a very unfair position for our Government to interfere with the disclaimer in general use by the seed trade. The causes are too many and too far-reaching for us at this late date to enter into a detail of them, but no doubt others have presented these more or less in detail, and it seems from your own expression, as found in, first session of House of Representatives, Report No. 1278, and on page 2, in the third, fourth, fifth, and sixth lines, and again at the bottom of the same page, where you say, "Nor is it safe in many cases for the seller of seed to guarantee the character, quality, or productiveness of the seed." That you also realize that this disclaimer should not be done away with except only when the evidence would prove conclusively that the dealer was mixing or otherwise handling seeds well known to be a mixture and that, not from the natural and usual conditions of growth where such weed and other vicious seeds would crowd in unbeknown to the grower or dealer, but applicable only to cases where the evidence would show it was of malicious and willful intent. Because of this expression of your own we trust that you will not only accept the suggestion from the seed trade that some certain changes should be made in your bill, but that you will use your best endeavor to grant sufficient delay and

also from your own act to assist in making such changes before the bill shall be enacted into a law, even if to do so it becomes necessary to recall the bill back into the committee for such readjustment.

We write this not that we are vitally interested, as our own business is mostly growing of peas and beans, and while it is not always possible to keep these as pure as we would like we do not understand, from your bill and the accompanying report that any part of your endeavor is to place a penalty upon conditions that can not always be remedied in growing, even from thorough endeavor on the part of the grower. Experience shows all growers that what under ordinary conditions would produce perfectly pure seed will under other conditions produce seed that is very impure, although that impurity can not be detected until in the next year's growing crop, and while it is always regrettable no amount of watchful care can always prevent unfavorable conditions of this kind.

Trusting that you will see to it that reasonable changes are made so as to bring no hardship upon any, and that at some later date, when you have arranged the bill so that you will know beyond doubt that there is no unfavorable or unjust clause, we shall be very glad to see a pure seed law that will prevent the importation into this country of spurious and harmful seeds, we remain,

Yours, truly,

THE JOHN H. ALLAN SEED CO.,
Per E. M. P.

PORTLAND, OREG., *April 15, 1908.*

HON. JAMES R. MANN,

House of Representatives, Washington, D. C.

DEAR SIR: Your favor of the 3d at hand, and also copy of pure-seed bill, together with the report thereon. Needless to say that we heartily favor a measure of that kind and trust that the bill may become a law.

As to suggestions that we may have to offer, it seems to us that section 5 is inoperative. It provides that no dealer shall be prosecuted when he has obtained a guaranty from the person from whom he has purchased the (adulterated) article. But, inasmuch as the furnishing of such a guaranty is not made compulsory, it may not be given, and the dealer, though ever so innocent, must face prosecution. If wrong in our interpretation of this, kindly set us right. While we would not like to see an innocent dealer suffer, we have but very little sympathy for such firms who deliberately adulterate seed; and so that the former is fully protected you can not, in order to suit us, make too drastic the punishment of the latter.

Feeling very much interested in this matter, we should appreciate hearing from you further.

Yours, truly,

PORTLAND SEED CO.,
Per E. C. JOHNSON.

SAN DIEGO, CAL., *April 16, 1908.*

JAMES R. MANN,
Washington, D. C.

DEAR SIR: Referring to your letter of the 9th instant regarding the pure-seed bill introduced by you, I sincerely hope it will become a law. I think there is nothing that would prove of more benefit to honest seedsmen than a law of this kind. I have had trouble in the past both with alfalfa and blue grass, the former being adulterated with yellow trefoil and the Kentucky blue grass with Canada blue grass, and this in spite of the fact that I paid the highest market price for same and supposed I was getting pure seed. Of course in all cases like the above the retail seedsmen has not the time to test for type and invariably has to stand the blame, although perfectly innocent.

I sincerely hope the bill will pass.

Very truly,

CHAS. H. NEARPASS.

MINNEAPOLIS, MINN., *April 18, 1908.*

HON. JAMES R. MANN,
Washington, D. C.

DEAR SIR: Acknowledging your valued favor of April 3, we are pleased to have the opportunity to express our views regarding the proposed seed bill, and we will present them as briefly as possible.

As may be gathered from the inclosed clipping, taken from the Minneapolis Journal of Thursday, April 2, 1908, we would approve any measure which would tend to check the selling or use of bad seed and at the same time be practical in its operation. Such a bill would, we believe, not only be approved of but welcomed by the legitimate seed trade of the entire country, for it is in a position to realize better than any other class the injury sustained to our agriculture by the use of noxious weeds.

Such a bill, however, would have to be considered with the greatest care or it would defeat its own purpose.

We believe that H. R. 13835 has its origin in a sincere desire to protect the planter from the injurious effect of bad seed. In our judgment, however, were it passed in its present form it would strike as serious a blow to the pure-seed interests of the country as would be possible to inflict, for if we read the bill aright it applies only to the exportation and importation of mixed, foul, and adulterated seed either to or from foreign countries or other States and does not cover the individual States. The cleaning and grading of grass, clover, or cereal seeds leaves a considerable percentage of inferior seed, often more or less mixed with weed seed. Then, too, there would remain in the farmers' hands much inferior seed, which the cleaners would naturally reject. In H. R. 13835, there being no restriction as to the quality of seed sold within each State, the natural outlet for such seed would be within the limits of the State, and the inevitable result would be the exportation out of the State of the best seed and the flooding of every State with foul seed from within itself.

That this is not a fancied evil is proven by the experience arising from the operation of the Canadian seed-control act of 1905, under

which Canada is becoming infested with foul seed as never before in its history. One authority for this statement is Mr. R. C. Steele, president of the board of trade, Toronto, Canada.

This might in time be remedied by the passage of State laws identical with the national law, but meantime such damage would be done to the agricultural interests of this country as would take years to undo.

There are further features of this bill to which strong objections may be reasonably entered. The penalties are too severe. Fines which should exceed any possible profit on the transaction should be quite sufficient, especially when it is considered that the seller would at all times be at the mercy of unscrupulous competitors and revengeful employees.

Vegetable seeds, flower seeds, and bulbs, there is practically no adulteration in these. They are bought, not by sample, but on faith in the grower; any seeds not testing satisfactorily on arrival are rejected by the purchaser, and if upon growth are found to be mixed he seeks another source of supply.

It is in grass and clover seeds, containing weed seeds which resemble the true article sufficiently to deceive the inexperienced and often the experienced, that the greatest injury is sustained, and by far the greater part of such seeds are imported. The weed seeds which are commonly found in American-grown seed are, for the most part, easily recognized and are familiar to most planters, and, with the exception of mustard, which is easily detected, are not calculated to work great harm. The weeds found in grass and clover seeds, which do the greatest harm, are those found in imported seeds. We refer to such seeds as dodder and buckhorn.

We have therefore the following to suggest:

First. The Secretary of the Treasury to furnish to the Agricultural Department samples of each lot of grass and clover seeds offered for entry into this country. That the Department of Agriculture be authorized and directed to reject all grass and clover seeds containing the above-mentioned seeds.

Second. If it be considered that the adulteration of Kentucky blue grass with Canadian blue grass is sufficiently harmful, then the importation of Canadian blue grass into this country be prohibited. We are inclined to think this would be a good measure. There are some soils and situations in which it is claimed that Canadian does better than the Kentucky blue grass, but this is more than overcome by consideration of the fact that Kentucky blue grass is being shamefully adulterated with Canadian blue grass on account of the resemblance of the last-named seed to the first, and its low price. Inasmuch as little or no Canadian blue grass is grown in this country the prohibition of this seed would help greatly in maintaining the purity of Kentucky blue grass.

Third. On account of the above and many other reasons which may be reasonably urged, we suggest that a commission be appointed to investigate these and other questions in connection with the seed interests of this country, and that a bill be prepared which will secure, so far as may be, the growth and dissemination of a high quality of seed, which bill shall be on such a basis as will also encourage the legitimate seedsmen of the country.

It is a trite saying that the prosperity of this country is based on its agriculture. If this be true, the seed interests are at the bottom of agriculture. It is a subject, then, which should be approached and handled with great care, and the matter should have the fullest investigation.

We are of the opinion that after such a committee shall have made its investigations and its report, it would be determined that legislation was unnecessary. Such was the conclusion of the committee from the Board of Trade of England, to which the matter was referred by Parliament, and which, after exhaustive and painstaking inquiry, concluded that the agricultural interests of the country would be best served by no legislation.

The real remedy is being brought about by the education of the farmer in the use of good seeds. He can now send samples to the experiment stations or the seed-testing division of the Department of Agriculture for examination. If he plants poor seed it is his own fault. Meantime, we believe that whether there be further legislation or not, the stoppage of seeds above referred to containing seeds of dodder, buckhorn, etc., would help to clear the situation, and the importation of Canadian blue grass might be prohibited.

There are other things which might be said about this bill—for example, any seed bill should carry with it provision for official analysts, whose decision should be final. It is a fact that the analyses of any two or more analysts seldom agree, even analyses of the same sample sent at different times to the same analyst are rarely identical.

There are other points to which we would like to call attention, but as they will probably be brought up by others we will not particularize, but will only urge that a matter so important to the people of this country, as well as the seedsmen, shall not be acted upon without time for a full consideration of the interests of all concerned.

In conclusion we desire to again thank you for the opportunity afforded us.

Yours, very truly,

NORTHRUP, KING & Co.,
J. E. NORTHRUP.

AGNEW SEED COMPANY,
Greeley, Colo., April 15, 1908.

HON. JAS. R. MANN,
Washington, D. C.

DEAR SIR: Your favor of the 3d instant asking for our opinion of your pure-seed bill was received sometime ago. We have read your bill and, frankly, do not think much of it. They have too much law and not enough justice in this country already. The bill will afford employment to a few more second-class clerks, but doubt whether it will make people any more honest than they now are. I think it is a good deal like the free-seed distribution—pretty much of a farce. It will act as an advertisement, but I doubt very much whether it will do any good.

Yours, truly,

J. B. AGNEW.

NEW YORK, *April 18, 1908.*

HON. JAMES R. MANN,

House of Representatives, Washington, D. C.

DEAR SIR: In further reference to your esteemed favor of 3d instant we beg to say that we have given as much consideration as possible at this season to your pure-seed bill, and our Mr. Bruggerhof has prepared a paper to be read by Mr. Wood, one of the members of the Wholesale Seedsmen's League, before the Committee on Interstate and Foreign Commerce of the House of Representatives on 21st instant.

We trust due consideration will be given to our Mr. Bruggerhof's suggestions and remarks so far as they are entitled to such.

We regret it will be impossible for our president to appear before the committee in person.

Yours, truly,

J. M. THORBURN & Co.

HASTINGS, NEBR., *April 15, 1908.*

HON. JAMES R. MANN,

HONORED SIR: Yours of April 9 received. You can not make your bill too strong. Allow only pure seeds, etc., to enter. European countries have been dumping their worthless seeds here infested with all kinds of calamity (weeds) and we have allowed it. It is a shame. One of our cities in this State has received 7 car-loads of alfalfa seed, "European." This tested 47 per cent alfalfa. The balance consisted of all kinds of calamity seeds. Of the 47 per cent of alfalfa seeds less than one-third grew, the other two-thirds of 47 per cent being of so low a vitality it failed. The loss to farmers is great, but the damage of spreading all those obnoxious weed seeds is many times greater. I repeat, make it strong, allow nothing but pure to enter, and enforce immediately what should have been done years ago.

Very respectfully,

CHAS. W. WINKLER.

P. S.—I wish a book—Weeds and How to Destroy, giving cuts of seeds and plants, etc. Where can I obtain, please, and cost. We grow alfalfa hay, sted, and honey. Thanking you in advance.

PULASKI, IOWA, *April 16, 1908.*

HON. JAMES R. MANN,

Washington, D. C.

DEAR SIR: With reference to H. R. 13835, would say that if this bill prohibits one seed dealer to ship to another seed dealer mixed seeds or seeds in the rough, as we call it, I am very much opposed to it. We buy timothy seed from farmers containing redtop, clover, and weed seeds of different varieties, and often sell to dealers East, just as we receive it from the farmers here. To prohibit this kind of traffic would work a hardship on the farmer as well as upon us.

Yours, very truly,

J. J. MILLER.

TERREBONNE INVESTMENT COMPANY,

CHICAGO, April 16, 1908.

HON. JAMES R. MANN,

House of Representatives, Washington, D. C.

MY DEAR MR. MANN: My attention has just been called to a bill which you seem to have "fathered," H. R. 13835. Now, my dear boy, you must not permit such a bill to become a law.

I am interested, with a few more citizens of our community, in the development and cultivation of a very large tract of land—more than a million acres—and while we want good seed to plant we also have much to sell, and I am dead certain I do not want to go to Leavenworth for selling the seed which Dame Nature has made. I am heartily in favor of providing against frauds which may be practiced by the unscrupulous who deal in seeds, but the producer and the honest dealer should be protected, because he can not be held responsible for the germinating qualities of any seed grown.

Before you condemn an honest dealer in seeds you must first find a way for nature to guarantee the quality she produces, and it appears to me to be a very difficult matter for the dealer to know just what percentage of seed will germinate each year, as you doubtless know that the conditions are never the same.

I recommend that you give every consideration to the views of Mr. Charles Dickinson, of the Albert Dickinson Company, of Chicago, whom I have known for more than twenty-five years, and there is no man in the country better qualified to pass upon the merits of this question than he.

His company is the largest dealer of seeds in this country, and all Chicagoans who know anything of the business life know well that they stand for the honest and upright handling of any commodity which passes through their concern.

This bill is a serious matter as now framed, for it will place the honest dealers in jeopardy and greatly damage the industry.

Please take your pen in hand and change it so that the honest dealer may be protected and the unscrupulous fellow be sent to Leavenworth. I will try personally to stay on the outside myself.

With kindest regards to yourself and family, I beg to remain,

Yours, very truly,

G. E. HIGHERLY.

SOCIETY OF AMERICAN FLORISTS.

MORGAN PARK, ILL., April 18, 1908.

MR. J. C. VAUGHAN,

The New Willard Hotel, Washington, D. C.

DEAR SIR: I have learned with surprise and much regret that a most drastic bill has been introduced in Congress bearing upon the seed business. I have not as yet been able to obtain a copy of this bill, but have been advised that it is very far-reaching in its effects. As neither this society nor the Horticultural Society of Chicago have been consulted regarding it, I am greatly in fear that it will do much harm.

The seed business is a most peculiar and difficult one, very intricate in its details, and full of difficulties which the ordinary man does not know and can not appreciate.

Any legislation adopted without careful consideration and consultation with the best growers, sellers, and users of seeds is bound almost to a certainty to be bad in its effect on the business of perhaps the most progressive, the most enterprising, and so far as my quarter of a century's active experience in buying and using seedsmen's products goes, one of the most honorable and upright classes of business men in the country. I know of no class of men who have approached the seedsmen in the amount of work that they are doing in a broad and intelligent way to beautify the homes of the people and to banish the ugly and unsightly. I know, too, from long years of business acquaintance with yourself and many other leading seedsmen, what ceaseless vigilance is displayed, what enormous sums of money are expended, and how strenuously each vies with the other in increasing the standard of purity and excellence in his products.

I also know that all of this honest, intelligent, and painstaking effort that is being made, and this great expenditure of money never results in certainty, and never can, and that any restrictions imposed, unless most carefully considered by those competent to know, will simply result in penalizing honest and upright tradesmen for things utterly beyond their power to control.

Of course we have the dishonorable and unscrupulous always with us, but so far as my experience goes the percentage of such men in the seed business is very small, and dishonesty in that line automatically brings its own punishment, perhaps to a greater degree than in any other line of business.

I trust that you will make every effort to have this bill withdrawn and submitted to this society for consideration. It is needless to call your attention to the fact that this society is incorporated under a national charter, that it comprises the leading men in all branches of ornamental horticulture throughout the country, and I believe it can speak with authority as to what legislation is advisable and as to what is unadvisable.

Very truly, yours,

W. N. RUDD.

NEW YORK, *March 10, 1906.*

HON. JAMES WILSON,

Secretary of Agriculture, Washington, D. C.

DEAR SIR: At the interview which you kindly granted to a few of the leading members of the seed trade on the 6th instant, on the subject of the adulteration of Kentucky blue grass, orchard grass, alfalfa, and red clover seed, you asked us to embody our views as then expressed in the form of a letter. This we now do.

We commend the work you have accomplished in this direction, as evidenced by your circulars No. 14, dated October 23, 1905, and No. 15, dated February 7, 1906, with this exception, that it does not seem to us fair that samples showing less than 5 per cent (or even 10 per cent) should be classed under the same heading as samples showing 15 per cent to 90 per cent of foreign matter.

For example, in circular No. 14, October 23, 1905, a sample of alfalfa seed from James J. H. Gregory & Son, Marblehead, Mass., shows 3 per cent adulterants, while on the next line above it one from J. A. Everitt, Indianapolis, Ind., shows 43 per cent. More extreme instances could be given, but this will suffice.

We respectfully submit for your consideration that it seems to us unfair that this should be, for the reason that anything under 8 per cent might easily be accidental and difficult to detect by the eye of even an expert, while samples having 10 per cent or over of adulterants are undoubtedly cases of deliberate adulteration.

We would therefore recommend, say, 8 per cent as the line or limit for taking such sweeping steps as the publication of the names of offenders.

We notice the adulterant most largely used in alfalfa and red clover is trefoil or yellow clover (*Medicago lupulina*). We ceased offering this in our catalogues eight years ago, and prior to that our sales of it did not average more than 200 pounds per annum. This same ratio we find holds good in the case of J. M. Thorburn & Co., of New York; W. Atlee Burpee & Co., William Henry Maule, and Johnson & Stokes, of Philadelphia, so that the trefoil required by the whole of the seed trade of America for legitimate purposes may be considered as very small, yet, from your reports, it is annually imported in immense quantities.

With the Department's facilities for getting this information (if you have not already got it) we would suggest that you find out who imports trefoil in such quantities. The firms or individuals who make a practice of doing this are the ones to reach, as, in the case of alfalfa and red clover, you would then reach three-quarters, if not nine-tenths of the trouble. The importers or manipulators are the real culprits, and not so much the small venders you mostly expose; although there is no excuse for them within the limits we have recommended, so long as the Department is willing, as you mentioned, to test and analyze samples of clovers and grasses free of charge.

In this connection we would respectfully draw your attention to the form of application which senders of samples have to fill in (one of which we inclose). We do not think it fair that the seedsman should be asked, even by the Department, where he has his seeds grown or what price he had to pay.

These, sir, are the views of the deputation which you kindly received on Monday last, and they are based on practical experience and facts, which you know are "chiefs that winna ding." They are respectfully submitted for your serious consideration.

Yours, truly,

PETER HENDERSON & Co.

Boston, May 5, 1908.

HON. WILLIAM P. HEPBURN,

*Chairman Committee on Interstate and
Foreign Commerce, House of Representatives.*

MY DEAR SIR: At the suggestion of Hon. James R. Mann and of Hon. Charles E. Townsend, members of your said committee, I am sending to you herewith the signed objections of all the Boston seed

merchants to the bill H. R. 13835, or so-called "Pure seed bill," now pending in your committee. These Boston merchants desire to have these objections printed and made a part of the record of the hearing on this bill before your committee on April 21, as they believe that a consideration of these objections may not only materially assist your honorable committee in the future consideration of this bill, but also perhaps protect them from ill-considered legislation.

Thanking you for your courtesies,

I am, dear sir, yours, very respectfully,

CURTIS NYE SMITH.

Objections of the undersigned seed merchants to bill H. R. 13835, or so-called "Pure seed bill."

At a hearing before the Committee on Interstate and Foreign Commerce on April 21, 1908, in the matter of the bill above mentioned, the chairman pro tempore, and also the author of said bill, invited the filing of objections to the bill. We, the undersigned, therefore, who are very extensively interested in both the wholesale and retail purchase and sale, and the importation and exportation of agricultural and horticultural seeds and bulbs, respectfully file the following objections to said bill and offer to substantiate the facts herein stated at such time and in such manner as the committee may request.

We have been engaged in the seed business for many years. We have tried, so far as human ingenuity and skill will permit, to buy and sell seeds as pure and good as is possible.

We unqualifiedly state that we are in entire sympathy with any legislative act, either by Congress or by the States, which will prevent or lessen the willful adulteration or misbranding of seeds and bulbs with intent to deceive or defraud the purchaser thereof. We assert that any form of fraudulent adulteration or misbranding of seeds is injurious and repugnant to our business. We believe that much of this sale of bad seed is done by small local traders, as is indicated, for instance, by the report of the Secretary of Agriculture of February 15, 1908, beyond the reach of a Federal law, and we therefore urge Congress to be cautious of injuring or annihilating the business of honest men or seriously affecting the purchaser of seeds and bulbs by an act that either is too severe or shows little appreciation and knowledge of the nature of seeds, their changing vitality, and crop conditions.

To be as brief as possible we shall discuss seriatim the several sections of this bill.

Sec. 1: This section states the jurisdiction and provides the penalties for violation of the act. On page 2, line 4, the words "or otherwise" are open to objection. By these words any transportation of seeds under the ban of the act becomes a violation of the act. We suggest that there are instances where it is desirable to send seed, for instance, to various experimental stations for testing purposes. These seed might perchance contain seed which, under the terms of the act, are adulterants or noxious weeds. Again a seedsman might desire samples of pernicious seeds in order to be able to identify them. Doubtless Congressmen would still like to send seeds, at the Government's expense, to their constituents, though they would not

like to be imprisoned for a year if by any oversight of themselves or their agents some 200,000 red-clover seed contain one dodder seed. In these and many other cases the sender or receiver or both has violated the act.

The penalties provided are altogether too severe. Imprisonment in any event should be eliminated. If the adulteration or misbranding is unintentional the fine should be light; if intentional, then heavier. The propriety of our criticism must be apparent after our statements regarding the following sections of the bill.

The act provides that the Secretary of Agriculture shall make the rules carrying out the provisions of this act. In the pure-food act of 1906, upon the lines of which the seed bill is evidently framed, the Secretary of the Treasury, the Secretary of Agriculture, and the Secretary of Commerce and Labor are designated as the makers of such rules. We think such provision is wiser and ought, especially, as the Secretary of the Treasury has duties to perform under this bill, to be incorporated in the seed bill.

All references in this section to exportation of seeds and bulbs should be eliminated. The object of the bill is, we suppose, to protect the inhabitants of the United States. Exporters of seeds should not be required, especially where seeds are shipped without cleaning and grading, to the same regulations as seed for domestic use. Such added requirements would increase the cost of export so that there would be no market for the product. Competition would rule the seeds out of the world market. It would also be impractical and impossible to govern such traffic. No other country that we know of has such a provision. The Canadian act of 1905, we know, does not.

Sec. 2: This defines the term "seed."

Under this definition the bill includes all seeds for seeding purposes. Seeds are purchased for this purpose, but require cleaning, grading, and storing. The bill absolutely prevents these and other very necessary duties, and a proviso covering these matters should be added. This is provided in the Canadian act of 1905.

Sec. 3: This section gives the arbitrary definition of the adulteration of seeds and bulbs and has four paragraphs or clauses.

Clause 1.—This clause deals first with the adulteration, either willful or innocent, of orchard grass, Kentucky blue grass, clover and alfalfa with certain other named seeds, the percentage of purity or freedom from such other seed being 98 per cent. We claim the margin of 2 per cent is too close. It ought at least to be 5 per cent. Inasmuch as the act operates against the entirely innocent as well as the intentionally fraudulent offender, and in view of the great similarity of some of the so-called adulterated seeds to the true seeds, a safe percentage for honest error ought to be made and we believe such percentage would be 5 per cent. This would not leave a sufficiently great inducement to the willful adulterator and yet permit the honest seedsmen to continue to sell grass and clover seeds. Another point against the 98 per cent purity requirement is that the large wholesale or retail merchant, against whom this bill is directly and almost solely aimed, must purchase his carload lots of seed from many sources, all of which he can not rely on for the purity of the seeds. Much of the mixture of bad and good seeds can be laid to the door of the grower who has every opportunity to watch the growth and elimi-

nate the impurities. The cleaning and grading of the seeds can be done well up to a certain point, but some seeds are so similar in appearance and weight that they can not be separated for commercial purposes to the high standard demanded in the bill. Yellow trefoil and red clover seed are of the same size and weight, and the winnowing and separating machine can not separate them absolutely, and yellow trefoil is frequently found in the same field with red clover.

Your committee's report to accompany this bill says that Kentucky blue-grass and Canada blue-grass seed are "very similar" in appearance, but the two can be told "apart when examined with a lens." Experts, and not seedsmen engaged in the competition of trade and with large expenses, can take the time to do this delicate work, but seedsmen are dealing in ton lots and can not do this and keep in business.

The proviso "that no seed shall be deemed adulterated when accompanied by a statement or label giving the name and amount or proportion of each of the kinds or varieties of seeds contained therein" does not help the seedsmen, for the duties demanded by it are altogether too rigorous. The expert must name each variety of seed. If a strange weed seed from a foreign clime creeps into the seed, the little fellow must be named and that correctly. There is not a seedsman in this country engaged in the purchase and sale commercially of seeds and bulbs who can accurately, or even at an approach to accuracy, name all seeds and so label their goods. The Department of Agriculture can not do it. We send specimens to the Department and get reports that such an official thinks the specimen such and such, but he has sent to South America for samples to prove the accuracy of the opinion. The Canadian act does not demand such an astonishing duty. Florida demands a guaranty on the label when, where, and by whom all garden, melon, and vegetable seeds were grown. North Carolina requires the label to state the year in which the vegetable or garden seeds were grown. Maine requires a guaranty of the percentage of purity of seeds.

We urge a more liberal proviso, to wit, "*Provided*, That no seeds shall be deemed adulterated within the meaning of this paragraph when it is accompanied by a statement or label, in the form and manner prescribed by the rules and regulations in this act provided for, giving the approximate amount or proportion of said seed in container or package to which said statement or label is attached."

Well known among seedsmen and most purchasers of seeds are "mixtures" or "blends" of grass, clover, or other seeds. The seedsman finds a certain mixture of grass or clover better adapted to climatic soil conditions, and so recommends it, his integrity and the success of the "mixture" being the basis of the sale. This "mixture" naturally is his trade secret and ought not to be divulged. The bill, as it now reads, prevents this. If the "Pure Food Act" is copied for a "pure seed act" seedsmen ought to have the benefit of this same privilege of selling "mixtures." We suggest a proper proviso covering this matter as follows: "*And provided further*, That no seeds shall be deemed adulterated within the meaning of this act in the case of mixtures or blends, when accompanied by a statement or label in the form and manner prescribed by the rules and regulations in this act provided for, stating plainly that they are mixtures

or blends of two or more varieties of seeds, and in such cases it shall not to be necessary to disclose the names, amounts, or proportions of the kinds or varieties of seeds or bulbs contained therein."

We now consider that clause in paragraph 1 of section 31, to wit, "or if any seed or bulbs purporting to be of one kind or variety contain more than two per centum of another kind or variety, such other seed or bulbs being similar in appearance or of lower market value."

In so far as the mingling of several varieties is knowingly and willfully done with intent to deceive or defraud the purchaser we approve a prohibition, but this clause is so sweeping and fails so absolutely to comprehend the nature of seeds, that it is not exaggerating to say that no seedsman can safely do business with such a law above him. This broad clause brings under this act not only grass and clover seeds, but also vegetable, flower, and cereal, in fact, all agricultural and horticultural seeds and bulbs. Seedsmen deal in about 5,000 different varieties of seeds and bulbs. Nature has been so ordered that many of the generating follicles of plant life have the same appearance to the eye, the same weight, and so forth. Sometimes this similarity is so absolute that no person can differentiate the seed of several varieties. In some cases the expert can separate, but not the ordinary seedsman. We have above mentioned how red clover and yellow trefoil are of the same appearance and weight. Rye-grass seed can be differentiated from meadow-grass seed by the trained eye, but many seeds of these two varieties look exactly alike. Your report says that the lens can tell the difference between Kentucky and Canada blue-grass seed. Varieties of turnip, cabbage, and cauliflower seeds can not be told apart. Certain bulbs are quite likely to be similar in every way. As an example take the bulbs of *Lilium longiflorum* and *Lilium harkisi*; there is absolutely no way to tell them apart. It is a mere cataloguing of seeds to show, at greater length, the very great similarity of seeds and bulbs. Even if the seedsmen, with the greatest possible desire to separate seeds and bulbs similar in appearance or of lower market value, laboriously examines every seed or bulb, he can not avoid a mistake. Even if the foreign consignor uses the greatest care in the growing, gathering, and packing of seeds and bulbs, and the consignee uses the same care in handling the consignment, yet a mistake or accident may occur which may mingle the varieties. For instance, to the knowledge of one seedsman a mingling of these two lilies occurred in the custom-house by the Government officials. There are countless instances where an unknown and innocent mingling of two or more similar varieties might occur. In all these instances the seedsman is at the mercy of others or of circumstances. The grower can tell what variety he has by the plant, the flower, the smell, the taste, and general appearance. The purchaser of the seed sows it, grows his crop, and has a like chance to test the variety by the same various outward signs. The seed merchant has absolutely none of these signs. He has the small seed that looks and weighs exactly like other variety of seed. This bill asks the impossible. All flower, vegetable, and cereal seeds and bulbs should be entirely eliminated from the bill except to prevent the willful adulteration or misbranding of these seeds and bulbs.

Mr. Charles D. Woods, director of the Maine Agricultural Station, states in his Bulletin No. 152: "The law regulating the sale of agri-

cultural seeds was more particularly intended to apply to grass seeds than to ordinary vegetable seeds." The clause should be omitted. Its effect is secured by other clauses in the bill. If it must stay, this important proviso of "intent" must be clearly made an essential element in this and every other clause affecting said seeds and bulbs. The Canadian act does not ask this impossibility, nor do the various State laws.

Your report, above referred to, states: "The only way, therefore, of reaching the present situation is by forbidding to a limited extent interstate commerce in seed which has been deliberately adulterated or misbranded and forbidding the importation of seed either intended for adulteration purposes in this country or which has been adulterated before importation." Therefore your bill singularly fails to prohibit what your report declares to be the only way of reaching the situation. We interpret your word "deliberate" to mean the "willful, intentional adulteration or misbranding of seeds or bulbs."

Therefore to place your ideas in legislative enactment the bill should introduce this element of "intent" into all clauses of sections 3 and 4, except second and third clauses of section 3.

The proviso of clause 1 of section 3 does not in the least relieve the honest seedsman. It does not recognize his inability to differentiate varieties.

Another apparent error in this clause is the word "or." This permits the violation of the act if a seed similar in appearance but of a higher market value is substituted. The word "and" would correct this error.

Clause 2.—Dodder is an evil weed and every seedsman hates it. However, it does creep in, and if we required the importation of 17,929,987 pounds of various seed in the year 1906, as your report states, we must not prevent this importation by such an absolute rule of exclusion as is given in the bill. This should read "a trace of dodder," trace having a definite meaning. The clause "or if any seed contain weed seed, rendering it unfit for seeding purposes," is too indefinite. What does "unfit" mean? Who is to determine this state or condition? The Canadian act confines its operation to the grass and clover seeds, but this clause operates against all seeds. Is it the object of the bill to free the farmer from hoeing and cultivating, or to supply a relatively pure seed? In any case, the cost of the seed that it would be necessary to charge, under the requirements of this bill, would be so very much higher that the seedsman would not be the only objector to this bill.

Clause 3.—This is another very objectionable clause. By "dead seed" we infer the meaning to be seed that will not germinate. The variations in crop and weather conditions and the soil, beyond the power of man to control, make seed good, bad, or indifferent in the germination qualities, and no matter what conditions govern, there is the same demand constantly for seed to plant. The germination test is not the only question to be considered. Sometimes the results from a sample of seeds that do not show up well in percentages of germination are much better than from a higher proof germination. For instance, a sample of 1906 corn did not show better than 65 per cent germination, yet that seed corn was much better for the farmer than the 1907 higher proof seed corn. Another instance is that of a

Boston merchant who sent his highest grade celery to the State testing laboratory at Amherst, Mass. The director sent back 27 per cent nongerminating seed. Under the wording of the bill these seeds would have contained sufficient dead seed to have materially reduced the value for seeding purposes. If this merchant had to have every pound of seed tested, and the best celery seed is imported, the time, expense, and trouble involved would at least demand a price of \$4 per pound instead of the \$2 now charged. It is clearly far better for the grower to pay the small price and, if he so desires, separate the seeds himself, than to pay the heavy additional price. As Bulletin No. 121 from the Massachusetts Agricultural Experiment Station, at Amherst, Mass., shows, there are a few methods which the farmer can employ in the separation process. The indefiniteness of the clause "materially reducing the value for seeding or planting purposes" is objectionable. We believe the clause does not show a proper appreciation of the difficulties surrounding the procurement of seeds. The seedsman has no opportunity to make a germination test in the case of some seeds, and in other seeds germination takes such an extended time that he can not market his goods. If there is a great demand for red-clover seeds, with no supply in this country, there will be a hasty requisition on Europe. The supply is secured, but the farmer can not wait for this germination test, and of course the importer can not get any guaranty provided in section 6 of the bill. The farmer is again hurt, for a complete test of germination will take thirty to forty days. It is not the province of this statement to give numerous illustrations, but only enough to indicate the errors complained of. The bill does not attempt to regulate this matter in interstate commerce, and by reason of the serious objections to it it should be wholly omitted. No other country or State has such a law.

Clause 4.—This is objectionable for the reasons stated in our remarks on clauses 1 and 3 of this section.

The innocent adding of any dead or weed seed should not be penalized. There should be inserted the element of intent before the word "added."

SEC. 4. Clause 1.—This clause is especially objectionable. The arguments recited in our objections to clause 1 of section 3 are applicable to this section. By this clause by the use of the word "or" an honest mistake or an error not due to the seedsman at all but to the customs inspectors, as in the case of the lilies, is punishable to the same extent as if the seedsman picked the pocket of his customer.

The clause should be amended to read:

"When seeds of one definitely distinguishable kind or named variety shall be knowingly and willfully substituted and offered for sale under the name of another definitely distinguishable kind or named variety with intent to deceive or defraud the purchaser of said seed: *Provided*, That nothing in this act shall be construed as requiring or compelling any dealer in or growers of seeds to discontinue the use of any name applied to a distinguishable variety of seeds or bulbs which he has so used and applied prior to the approval of this act."

Clause 2.—To say that this label must give the exact weight or measure is too rigorous. In the winter when the selling season is

dull those merchants who sell seeds in the package form put up their seeds. The seeds have come perhaps from a moist climate or storage and after three or four months in the warm store slightly shrink both in weight and size and consequently measure less. We believe the clause should end "approximately stated plainly and correctly."

Clause 3.—The consignee of seeds may be wrongly informed where seeds are grown. We suggest that the clause be amended to read, "If the article be knowingly and willfully labeled or branded falsely." As a prevention of the improper use of bags and packages by another party, we suggest the addition of this clause:

"4. If any branded box, bag, or other container is used for any other seed of the same kind which is sold in or from said container for the purpose of deceiving the purchaser."

SEC. 5. This provision about guaranteeing seeds does no good to the seedsmen. Your report suggests how unpracticable is the guaranty of seeds. The importer of seeds can not get a guaranty and it would not, under the terms of this section, be worth anything, the consignor not being a resident of this country. Unless the bill is amended by the elimination of vegetable, flower, and cereal seeds and bulbs there must come a total cessation of importation of seeds and bulbs, for the reason that the importer, because of the similarity of seeds, can not absolutely tell whether his consignment comes within the harsh terms of the bill or not. It will be utterly impossible to guarantee that a ton of grass or clover seed contains not one single dodder seed. Interstate traffic will also be seriously affected. The guaranty clause, not being compulsive, will not be used, and great hardship will be imposed on the seedsman who must break the original package. Some other relief ought to be held out to the seedsmen, such as escape from prosecution by supplying the name and address of the consignor of the seeds. This is done in the Canadian act of 1905.

SEC. 6. The procedure for the inspection, testing, trial, and decision of the Secretary of Agriculture concerning seeds is not satisfactory. Seeds are imported to supply a quick demand, and they must be supplied for sowing or planting when the season is ready for them. The Secretary of Agriculture is not bound by any clause in the bill to perform his duties expeditiously. Moreover, there should be provided some right of appeal from the decision of the Secretary of Agriculture if the seedsman feels aggrieved by a biased or otherwise wrongful decision. In patent law there is provided such an appeal from the decision of the Commissioner. In the case of a seed bill an appeal could be easily provided to either the Court of Claims or to the court of appeals of the District of Columbia. The bond required is double the amount of full invoice of seeds with the duty added thereto. The pure-food bill does not require this double amount. If we must compare two totally different subjects, let us at least have the relief given in the pure-food act and cross out the "double."

We strongly object to the clause, "or is or are otherwise falsely labeled in any respect, or is or are of a quality forbidden to be sold or restricted in sale in the country from which exported." This clause should be entirely omitted. It is too general, too indefinite, and difficult to be intelligently carried out. While a minimum of good might be secured a maximum of injury is inflicted.

The clause following above, to wit, "or is or are intended for adulteration purposes," appears fair on its face, but it is iniquitous.

What are adulterants? Who is to decide this important question? Your report says Canada blue grass is an adulterant. When this act is passed the price of Kentucky blue grass will soar so high that the ordinary purchaser must seek for a cheaper article, which will be Canada blue grass. Already Canada blue grass is listed in reputable seedsmen's catalogues, and sold as such for seeding purposes. The only fault with Canada blue grass is that some people have fraudulently used it as an adulterant. By this clause there can be no importation of a highly necessary and entirely useful seed. We suggest that this grave mistake might be remedied by inserting before "intended" the word "solely."

SEC. 7. The principal is held for the act, omission, or failure of his agent: this is not equitable. It gives no chance to the honest seedsmen to prove what efforts he has taken to guard against mistakes, intentional or otherwise, of his agents or employees. The Canada act more justly makes the principal *prima facie* liable. This provision gives the defendant a day in court, and if he has any legal defense such can be duly presented to court and jury.

The so-called "pure-seed bill" in its wording and effect is evidently a shadow of the pure-food bill of 1906 of Congress. Are the same facts involved in the sale of seeds as in the sale of foods or drugs? We say no. A druggist deals in small quantities. He handles life and death in the shape of a milligram of poison. On him rests a stern duty. His employees must be men well educated and highly trained in their profession. They must pass examinations required by the State before they can handle a prescription. For this high class of service, these strict requirements, the drug merchant receives his higher pay. And the food manufacturer must avoid noxious preservatives, for the sake of life and death. If noxious preservatives are used, such action is, and there can be no doubt of it, deliberate, willful, and intentional. Before such a preservative comes into the warehouse or shop there must be an order for it. It is paid for, and the manufacturer from top to bottom knows why it is ordered, paid for, and used. But with the seed merchant almost everything is entirely different. He deals with the mysteries of nature's laws. He knows not surely from the appearance of the seed follicle whether it will reproduce its kind or not.

Nature, in its infinitely numerous methods of disseminations, scatters seed of all kinds over the face of the earth. The merchant, against whom this bill is aimed, buys these seeds, tries, so far as his skill and ingenuity will permit, to sort and grade them. He is handicapped in the performance of this duty by the seeds themselves, for many of them are very similar—in fact, entirely alike in many instances. The merchant has his many expenses. Because of the small profits gained from his business he must employ all grades of help, from the highest to the lowest. And above all he must sell his product at reasonable prices to a market that is very extensive. This market is made up of all classes and conditions, from the expert agriculturist to the most ignorant of peoples. His seeds are praised or condemned justly and unjustly. The relation between the seed merchant and his patrons is confidential. Their interests are similar. What hurts one hurts the other. An impossible law hurts the pur-

chaser of seeds as directly as it does the merchant. There is no trade or profession where the principle of caveat emptor is less evident than in the business of the honest seed merchant. If we must have a Federal seed act let it be in accord with nature's laws; let the willful, intentional, and fraudulent adulteration and misbranding be punished; let that and that only be the gravamen of the offense.

Respectfully submitted.

JOHN K. M. L. FARQUHAR.

JAMES F. M. FARQUHAR.

SCHEEGEL & FOTTLER Co.,

JOS. M. GLEASON, *Treasurer*.

H. E. FISKE SEED COMPANY,

H. E. FISKE, *President*.

JOSEPH BRECK & SONS (Corporation),

Per CHAS. H. BRECK, *President*.

W. H. RAMSON & Co.

THOS. J. GREY COMPANY.

HASKELL IMPLEMENT & SEED Co.,

By A. P. WEBSTER, *Treasurer*.

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